

ELECTRICAL GENERAL NOTES

1. CONTRACTOR SHALL APPLY FOR ALL PERMITS AND INSPECTION REQUIRED BY LEGAL AUTHORITIES.
2. ALL WORKS AND MATERIALS MUST COMPLY WITH THE LATEST EDITION OF CEC AND CEC AND MOST STRINGENT APPLICABLE CODE OR REGULATION.
3. CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR ANY ADDITIONAL COSTS FOR MATERIAL OR LABOR TO COMPLY WITH THESE CODES OR REGULATIONS.
4. CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITION OF THE PREMISES ON WHICH THE WORK IS PERFORMED AND FOR THE SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE CONTRACT.
5. ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE LISTED, LABELED AND INSTALLED PER RECOGNIZED ELECTRICAL TESTING LABORATORY OR AGENCY.
6. ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER.
7. DESIGN DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION CONDITIONS WILL PERMIT.
8. NOTHING ON THIS DESIGN DRAWINGS SHALL BE DEEMED AS TO VIOLATE THE LATEST AND MOST STRINGENT APPLICABLE CODES OR REGULATIONS.
9. ANY ERROR, OMISSION OR DESIGN DISCREPANCY ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ELECTRICAL ENGINEER FOR CLARIFICATION OR CORRECTION DURING BIDDING PROCESS.
10. ALL OPENINGS AROUND ELECTRICAL PENETRATIONS THRU FIRE RESISTANCE RATED WALLS, PARTITIONS, FLOORS OR CEILINGS SHALL BE FIRE STOPPED USING APPROVED METHODS AS DETERMINED BY CODE OR REGULATION.
11. ITEMS INDICATED ON THESE PLANS SHALL BE FURNISHED, INSTALLED AND CONNECTED WITH ALL REQUIRED ACCESSORIES AND PERIPHERALS EVEN IF NOT INDICATED FOR A COMPLETE FUNCTIONAL AND OPERATIONAL SYSTEM, THE INFORMATION GIVEN IS NOT LIMITED TO EXACT LOCATION AND POINT OF CONNECTION AND THE NUMBER OF CONNECTIONS, AND THE CONNECTIONS, AND THE COORDINATION WITH OTHER TRADES.
12. ALL GROUNDING SHALL BE IN FULL COMPLIANCE WITH CALIFORNIA ELECTRICAL CODE. INCOMING SERVICE SHALL BE PER UTILITY GROUNDING COMPANY REQUIREMENT.
13. UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC WITH SCHEDULE 80 PVC BENDS AND STEEL RISERS. ALL UNDERGROUND PVC CONDUITS SHALL CONTAIN A GROUND CONDUCTOR, AND SHALL BE SIZED PER CODE REQUIREMENT.
14. ALL CIRCUIT BREAKERS IN PANELBOARDS SHALL BE BOLT-ON TYPE, NO PLUG-IN TYPE IS ALLOWED.
15. ALL FUSED DISCONNECTS SHALL BE FUSED PER NAMEPLATE UNLESS NOTED.
16. CONTRACTOR SHALL SUBMIT CATALOG CUTS OF MAIN SWITCH BOARDS BEFORE PLACING ORDERS AND PURCHASE.
17. ALL CONDUCTORS SHALL BE COPPER TYPE THW, THWN, XHHW, THHN 600V INSULATION UNLESS OTHERWISE NOTED.
18. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE.
19. ALL CONDUITS SHALL BE RIGID CONDUIT OR E.M.T.. CONDUIT SHALL BE SUPPORTED ACCORDING TO CODE. ALL EMPTY CONDUITS SHALL INCLUDE PULL WIRE.
20. FLEXIBLE CONDUITS SHALL BE USED FOR FINAL CONNECTION TO MOTORS AND OTHER VIBRATING EQUIPMENT. EXPANSION COUPLINGS SHALL BE USED AT BUILDING EXPANSION JOINTS. (CONTRACTOR TO INSTALL FLEXIBLE CONDUIT WHERE FLEXIBILITY TO EQUIPMENT OR LOAD IS REQUIRED. COMPLY WITH CEC, CEC AND BUILDING DESIGN CRITERIA FOR FURTHER REQUIREMENT).
21. NON METALLIC BUSHINGS OR INSULATED METALLIC BUSHINGS SHALL BE PROVIDED FOR ALL CONDUIT TERMINATION.
22. CONTRACTOR SHALL COORDINATE AND VERIFY MECHANICAL EQUIPMENT CONTROL AND WIRING REQUIREMENT WITH MECHANICAL CONTRACTOR BEFORE CONSTRUCTION.
23. EACH LUMINAIRE CUT SHEET AND APPROVED EQUAL SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL BEFORE CONSTRUCTION.
24. PROVIDE ILLUMINATED EXIT SIGNS AS REQUIRED WITH SELF CONTAINED EMERGENCY BATTERY PACK AS ACCEPTED BY THE FIRE MARSHAL.
25. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS TO COVER ALL THINGS REQUIRED TO MAKE A COMPLETE AND OPERATIVE SYSTEM. CONTRACTOR SHALL FURNISH ALL LABOR MATERIALS, EQUIPMENT, OR MISCELLANEOUS SERVICE REQUIRED TO ACCOMPLISH THIS RESULT.
26. CONTRACTOR SHALL BID THE PROJECT AS INDICATED AND SPECIFIED ON THE DRAWINGS. WHEN SUBSTITUTING MATERIALS OR EQUIPMENT OTHER THAN AS SPECIFIED ON THE DRAWINGS, CONTRACTOR SHALL SUBMIT CATALOG CUTS AND AMOUNT OF CREDIT FOR SUBSTITUTION TO BID FOR APPROVAL.
27. ALL NOTES AND SCHEDULES LISTED ON DRAWINGS OF OTHER SECTIONS OF THIS PROJECT WITH REFERENCE TO ELECTRICAL CONTRACTOR OR ELECTRICIAN APPLY TO THIS SECTION OF CONTRACT.
28. ALL ELECTRICAL WORK NOTED ON AC AND PLUMBING DRAWINGS TO BE DONE UNDER THIS SECTION.
29. SUBMIT 4 COPIES OF SHOP DRAWINGS FOR APPROVAL WITHIN 35 DAYS OF AWARD OF CONTRACT. CONTRACTOR SHALL VERIFY DIMENSIONS OF EQUIPMENT AND MAKE SURE THEY COMPLY WITH ALL APPLICABLE CODE REQUIREMENTS RELATING TO CLEAR WORK SPACE AROUND EQUIPMENT PRIOR TO SUBMITTING SHOP DRAWINGS.
30. SUBMIT 4 COPIES OF MATERIAL LIST FOR APPROVAL WITHIN 35 DAYS OF AWARD OF THE CONTRACT. THE RIGHT IS RESERVED TO SUBMITTAL OF ANY SAMPLES OF FURNISHED MATERIAL, IF DEEMED NECESSARY BY THE OWNER.
31. SUBSTITUTION OF ANY MATERIAL OR EQUIPMENT SHALL BE APPROVED BY ARCHITECT BEFORE INSTALLATION.
32. BEFORE FINAL ACCEPTANCE OF WORK CONTRACTOR IS TO INSURE ALL EQUIPMENT, SYSTEMS ARE INSTALLED AND FUNCTIONING PROPERLY BY PERFORMING REQUIRED FIELD TESTS.
33. ~~THIRD PARTY CERTIFICATION:~~ ALL PACKAGED EQUIPMENT SHALL BE BY INDEPENDENT THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A NATIONAL RECOGNIZED TESTING LABORATORY (NRTL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS 29CFR1910.303 AND .399, AS WELL AS NFPA PAMPHLET #70, CALIFORNIA ELECTRIC CODE (CEC), ARTICLE 90.7
34. EXTEND MIN 2" TELEPHONE CONDUIT TO TELEPHONE BACKBOARD UNLESS NOTED OTHERWISE.
35. AS PER CEC, APPROPRIATE CONDUIT AND WIRE TYPE SHALL BE USED FOR WET LOCATIONS, HAZARDOUS LOCATIONS, CORROSIVE ENVIRONMENT OR SIMILAR SPECIAL CONDITIONS.
36. ELECTRICAL CONTRACTOR SHALL FURNISH A COMPLETE TYPE WRITTEN IDENTIFICATION DIRECTORY CARD IN EACH ELECTRICAL PANEL IDENTIFYING ALL BRANCH CIRCUITS.
37. ALL EXPOSED WIRING SHALL BE INSTALLED IN CONDUIT. CONDUIT SHALL BE GALVANIZED STEEL, RIGID HEAVY WALL OR ELECTRICAL METALLIC TUBING. WATERTIGHT FITTINGS SHALL BE USED WHERE REQUIRED BY CODE. ROMEX AND BX CABLE ARE PROHIBITED.
38. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL CIRCUITS BETWEEN PHASES OF THE SYSTEM, REGARDLESS OF CIRCUITING INDICATED.
39. FLEXIBLE METAL CONDUIT SHALL BE USED ONLY FOR CONNECTIONS INSIDE CASEWORK AND AS THE FINAL CONNECTION SIX FEET (6'-0") MAXIMUM LENGTH, MINIMUM ONE-HALF INCH (1/2") ELECTRICAL TRADE SIZE TO RECESSED FIXTURES, MOTORS, AND EQUIPMENT THAT MAY GENERATE VIBRATION THROUGH THE CONDUIT SYSTEM.
40. A NEUTRAL FAULT TEST IS REQUIRED PRIOR TO ENERGIZING CIRCUITS.
41. BX, ROMEX, AC(BX) OR MI TYPE WIRING WILL NOT BE ALLOWED. ALUMINUM CONDUCTORS ARE NOT PERMITTED.
42. EXPOSED CONDUITS SHALL BE INSTALLED IN STRAIGHT LINES, PARALLEL WITH OR AT RIGHT ANGLES TO THE BUILDING STRUCTURE. DO NOT LOOP EXCESS FLEXIBLE CONDUIT IN CEILING SPACE.
43. PROVIDE SWITCH AND RECEPTACLE HEIGHTS PER STATE OF CALIFORNIA ACCESSIBLE REQUIREMENTS.
44. THE ISSUANCE OF A PERMIT SHALL NOT PREVENT THE BUILDING OFFICIAL FROM REQUIRING THE CORRECTION OF ERRORS ON THESE PLANS OR FROM PREVENTING ANY VIOLATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND/OR REGULATIONS.
45. FOR FIRE RATED WALL/CEILING PENETRATION AND/OR MEMBRANE PENETRATION, COMPLETE NRTL CLASSIFICATION SHEETS SHALL BE PROVIDED TO THE INSPECTOR AT THE TIME OF INSPECTION
46. SUBMIT TO POWER COMPANY A WRITTEN NOTICE OF THE EXTENT AND NATURE OF ANY MATERIAL CHANGE IN THE SIZE, CHARACTER, OR EXTENT OF THE UTILIZING EQUIPMENT OR OPERATIONS FOR WHICH THE COMPANY IS SUPPLYING ELECTRICAL SERVICE BEFORE MAKING ANY SUCH CHANGE.
47. THE UNGROUNDED AND GROUNDED CONDUCTORS OF EACH MULTIWIRED BRANCH CIRCUIT SHALL BE GROUPED BY WIRE TIES OR SIMILAR MEANS IN AT LEAST ONE LOCATION WITHIN THE PANELBOARD OR OTHER POINT OF ORIGINATION. (210.4(D)).
48. EACH MULTIWIRED BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES. (210.4)
49. PROVIDE SEPARATE SUBMITTAL, OBTAIN ALL REQUIRED PERMITS, INSPECTIONS AND APPROVALS FOR ALL FIRE ALARM SYSTEM INSTALLATIONS AND/OR MODIFICATIONS FROM THE FIRE DEPARTMENT AND THE BUILDING DEPARTMENTS
50. PROVIDE SEPARATE SUBMITTAL FOR ALL ELECTRICAL SUBSYSTEMS WITH POWER SUPPLY(S) OF MORE THAN 50VA AND /OR 24V. (E.G. SECURITY, CARD READERS, TELCO/DATA, PA AUDIO/VISUAL NURSE CALL, HVAC AND REFRIGERATION CONTROLS, ETC.)
51. ALL INSTALLED MATERIALS AND EQUIPMENT SHALL BE LISTED U.L. NRTL OR LISTED AND APPROVED BY THE CITY APPROVED TESTING LABORATORY.
52. PROVIDE ARC FLASH LABELING AS REQUIRED PER (110.16)
53. ALL NEW OVERCURRENT DEVICES INSTALLED IN EXISTING PANELS/SWITCHBOARDS SHALL MATCH THE MAKE, MODEL AND INTERRUPTING CAPACITY OF THE EXISTING OVERCURRENT DEVICES.
54. CONDUITS OR RACEWAY THROUGH WHICH MOISTURE MAY CONTACT LIVE PARTS SHALL BE SEALED OR PLUGGED AT EITHER OR BOTH ENDS.

FIRE ALARM NOTES

1. ALL FIRE ALARM SYSTEMS SHALL BE PROVIDED BY OTHERS.
2. INSTALLATION OF FIRE ALARM SYSTEM SHALL BE UNDER A SEPARATE PERMIT.

HVAC NOTES 17BLD-0344

1. REFER TO MECHANICAL PLANS FOR EXACT LOCATION OF EACH EQUIPMENT.
2. PROVIDE ALL HVAC EQUIPMENT, CONTROLS, CONDUITS, WIRES AND ELECTRICAL CIRCUIT CONNECTIONS. VERIFY AND COORDINATE ALL REQUIREMENT WITH THE MECHANICAL DRAWINGS AND EQUIPMENT SUBMITTAL.

ELECTRICAL SEISMIC NOTES

1. PROVIDE COMPLETE SEISMIC ANCHORAGE AND BRACING FOR ALL ELECTRICAL EQUIPMENT.
2. PRIOR TO EQUIPMENT INSTALLATION, SUBMIT COMPLETE SEISMIC ANCHORAGE AND BRACING CALCULATIONS AND DETAILS SHOWING EQUIPMENT WEIGHTS AND CENTERS OF GRAVITY, LOCATION, QUANTITIES, SIZES AND METHOD OF ANCHORAGE AND BRACING WITH A CHECK FOR COMBINED SHEAR AND TENSION BASED ON UNIFORM BUILDING CODE SECTION 1613 AND ASCE 7 SECTION 13.6 USING THE FOLLOWING MINIMUM CRITERIA:
 - a. FIXED EQUIPMENT ON GRADE : 50% OF OPERATING WEIGHT.
 - b. FIXED EQUIPMENT ON STRUCTURE : 75% OF OPERATING WEIGHT.
 - c. FLEXIBLY MOUNTED EQUIPMENT : 4 TIMES THE ABOVE VALUES.
 - d. SIMULTANEOUS VERTICAL FORCE : 1/3 X THE HORIZONTAL FORCE.
3. REFER TO ASCE 7 TABLE 13.6-1 FOR APPLICABLE SEISMIC COEFFICIENTS s_p AND R_p .
4. REFER TO CBC FOR APPLICABLE FORCE FACTOR "Cp", INCLUDING THE EFFECT OF TEMPERATURE CHANGE IN PREPARATION OF ANCHORAGE AND BRACING DETAILS.
5. THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER/ARCHITECT
6. CONTRACTOR SHALL DESIGN- BUILD THE SEISMIC ANCHORAGE & SUPPORTS FOR ALL NEW ELECTRICAL EQUIPMENT & FOR EXISTING ACCESSIBLE & VISIBLE CONDUITS AND PULLBOXES, AND FOR NEW CONDUITS, NEW EQUIPMENT & NEW PULLBOXES. SUPPORT PANELBOARDS IN UNISTRUT SUPPORTS FLOOR TO CEILING SLAB.
7. SUBMIT SEISMIC CALCULATION & RESTRAINT DESIGN (SIGNED BY A REGISTERED STRUCTURAL ENGINEER) FOR REVIEW BY OWNER.

NOTES TO LOW VOLTAGE CONTRACTOR

1. REFER TO ARCHITECTURAL DETAIL DRAWING FOR POWER AND DATA CABLE DIAGRAM FOR ADDITIONAL INFORMATION.
2. REMOVE ANY EXCESS CAT 5 CABLES AT THE CASH WRAP AND BACKROOM TELEPHONE/IT BACKBOARD.
3. TERMINATE ALL CAT 5/CAT5e/CAT6a CABLES TO EXACT AND APPROPRIATE LENGTH AND ARRANGED IN STRUCTURED MANNER PER CURRENT ACCEPTABLE INDUSTRY STANDARD.
4. ALL CABLES SHALL TERMINATE IN A JACK AND BACKROOM TELEPHONE/IT CABLES ARE NEAT.
5. PROVIDE 1" VELCRO TO BUNDLE ALL LOW VOLTAGE WIRES.
6. ALL LOW VOLTAGE CABLES SHALL BE IN 3/4" MIN. OR IN AN APPROPRIATE WIREMOLD RACEWAYS. FILL RATIO SHALL NOT EXCEED 40%.
7. PROVIDE #16 AWG SPEAKER WIRE @ MAXIMUM 80'-0" LENGTH, #14 AWG FOR 200'-0" LENGTH AND #12 AWG FOR LENGTH LONGER THAN 200'-0".
8. SECURITY DEVICES, IF ANY MUST BE CONCEALED AND MUST NOT DISTURB STRUCTURAL SLAB. NO VISIBLE SECURITY DEVICES OF ANY KIND WITHIN 5' OF STOREFRONT LEASE LINE. CAMERAS, MOTION DETECTORS, TRAFFIC COUNTERS, ETC, MUST BE RECESSED OR LOW PROFILE. SUBMIT MANUFACTURERS SHOP DRAWINGS FOR REVIEW AND APPROVAL.
9. REFER TO ARCHITECTURAL DRAWING FOR TYPICAL CASHWRAP WIRING DIAGRAM AND POINT OF CONNECTION GOING TO POWER AND DATA.

NOTES TO CONTRACTOR

- A. ALL CONTRACTORS (GENERAL CONTRACTOR AS WELL AS ALL SUB-CONTRACTORS) BIDDING AND AWARDED TO CONSTRUCT THIS FACILITY ARE RESPONSIBLE FOR VERIFYING ALL EQUIPMENT FURNISHED AND SUPPLIED AND INSTALLED AT THIS SITE. THE EQUIPMENT UTILITY (GAS, WATER, SEWER, VENT, ELECTRICAL, BUILDING MECHANICAL SYSTEMS, DUCT CONNECTIONS, EXHAUST CONNECTIONS, SECURITY, FIRE ALARM, DATA, PHONE, ETC.) CONNECTION MUST BE VERIFIED BEFORE BIDDING. THIS INCLUDES BUT NOT LIMITED TO POINT OF CONNECTION, LOCATIONS, TYPE OF CONNECTIONS, NUMBER OF CONNECTIONS, AND COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL BE RESPONSIBLE FOR READING THE EQUIPMENT SPECIFICATION BOOK AS PART OF THE CONSTRUCTION DOCUMENTATION. THE EQUIPMENT WILL INCLUDE ALL EQUIPMENT PURCHASED OR FURNISHED OR INSTALLED BY ANY ONE.
- B. ALL UTILITY CONNECTIONS AND THEIR LOCATIONS MUST INCLUDE ALL EQUIPMENT AS REQUIRED BY THE UTILITY COMPANY AS WELL AS LOCAL CODES OR THE SHOPPING CENTER/MALL REQUIREMENTS. CONTRACTOR TO VERIFY ALL REQUIREMENTS BEFORE BID. THE MOST STRINGENT REQUIREMENT SHALL APPLY EVEN IF NOT DETAILED.
- C. THE CONTRACTORS ARE RESPONSIBLE FOR REQUESTING VERIFICATION OF ALL OWNER REQUIREMENTS AS WELL AS ANY OTHER LOCAL/STATE/FEDERAL REQUIREMENTS. THE CONTRACTOR SHALL VERIFY AND INSURE ALL EXISTING SYSTEMS FUNCTIONAL. CONTRACTOR TO VERIFY THE PLACEMENT OF NEW EQUIPMENT ARE AVAILABLE. ALL EQUIPMENT FURNISHED TO THE CONTRACTOR AS WELL AS PURCHASED BY THE CONTRACTOR MUST BE ACCOMPANIED WITH FULL SUBMITTAL PROCESS AND ENGINEERS' APPROVAL. THE CONTRACTOR SHALL FOLLOW ALL INSTALLATIONS PER LOCAL AND STATE CODES. ANY FIELD CORRECTION MUST BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE OWNERS.
- D. THE CONTRACTORS ARE RESPONSIBLE FOR REQUESTING EQUIPMENT CUT SHEETS AND IF THE EQUIPMENT FURNISHED DIFFERED FROM THE CUT SHEETS, THE CONTRACTOR SHALL ADJUST THE INSTALLATION ACCORDINGLY. ALL COORDINATION AND ADJUSTMENT AMONG ALL TRADES MUST BE PERFORMED BY THE GENERAL CONTRACTOR. ALL COORDINATION AND THE DISTRIBUTION OF RESPONSIBILITY FOR THE SITE IS BY THE GENERAL CONTRACTOR. ALL BIDS MUST BE FOR FULL INSTALLATION OF COMPLETE FUNCTIONAL AND OPERATIONAL EQUIPMENT AND SYSTEMS. ALL ACCESSORIES AND PERIPHERALS WIRES, CONDUITS, PIPES, CONNECTIONS, ROOF PENETRATIONS, ATTACHMENTS, SUPPORTS, AND ANY OTHER REQUIREMENTS WILL BE PART OF BID FOR FULLY FUNCTIONAL AND COMPLETE INSTALLATION AS REQUIRED BY PLANS AND SPECIFICATIONS AS WELL AS LOCAL REQUIREMENTS. ALL WORKS INVOLVING VARIOUS TRADES EVEN THOSE NOT SHOWN ON THESE DRAWINGS SUCH AS SECURITY SYSTEMS, FIRE ALARM SYSTEMS, HVAC SYSTEMS, ETC. MUST BE WELL COORDINATED DURING THE BIDDING PROCESS. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF ABOVE REQUIREMENTS AND MUST INCLUDE ALL PROVISIONS INTO THE BID AND INSTALLATION.
- E. ALL EXISTING INSTALLATIONS & CONNECTIONS DONE BY OTHERS ARE NOT PART OF THE SCOPE OF THIS PROJECT. IF THE INSTALLATION, CONNECTIONS, MATERIALS & EQUIPMENT ARE NOT TO CODE OR ARE UNSAFE, THE OWNER OF THE BUILDING SHALL BE CONTACTED AND ALL CORRECTIONS TO EXISTING WORK SHALL BE DONE UNDER SEPARATE CONTRACT. ENGINEER IS NOT RESPONSIBLE FOR ANY EXISTING CONDITIONS OR WORK PREVIOUSLY DONE BY OTHERS.
- F. WHERE CONDITIONS ARE SHOWN OR NOTED AS EXISTING, THEY ARE BASED ON THE BEST INFORMATION CURRENTLY AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS. NO WARRANTY IS IMPLIED AS TO THE ACCURACY OF SAME HOWEVER AND CONTRACTOR IS TO FIELD VERIFY ALL CONDITIONS. SHOULD FIELD CONDITIONS DIFFER FROM THOSE SHOWN HEREIN THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.
- G. CONTRACTORS TO PREPARE SHOP DRAWINGS AFTER CONDUCTING SITE SURVEY. THE SHOP DRAWINGS MUST PROVIDE THE NECESSARY INSTALLATIONS, CUSTOMIZED ACCORDING TO ACTUAL SITE CONDITIONS. PROVIDE A COPY TO THE CLIENT, ARCHITECT & ENGINEERS A WEEK PRIOR TO MOBILIZATION.
- H. CONTRACTOR TO PREPARE TWO COPIES OF RED LINE AS-BUILT DRAWINGS. USE THE SHOP DRAWINGS AS THE BASE PLAN, RED PENCIL (NOT PEN) TO UPDATE THE SAID AS-BUILT EVERYDAY. THE FIRST COPY IS FOR TECHNICIAN REFERENCE WHILE WORKING. THE SECOND COPY SHOULD BE KEPT CLEAN, NEAT, & LEGIBLE. THIS SHALL BE USE FOR INSPECTION, MEETING, RFI PREPARATION, AND OTHER APPLICATIONS WHEREON A CLEAN, NEAT, & LEGIBLE COPY IS NECESSARY. PRIOR TO RELEASE OF FINAL PAYMENT, THE SECOND COPY MUST BE CERTIFIED BY THE CONTRACTOR'S LICENSEE AS COMPLETE & CORRECT. SCAN AND PROVIDE ELECTRONIC COPY TO THE CLIENT, ARCHITECT, & ENGINEERS. THE HARD COPY MUST BE KEPT BY THE CONTRACTOR DURING WARRANTY PERIOD AND MUST BE SUBMITTED TO STORE MANAGER ON THE LAST DAY OF WARRANTY.
- I. SHOULD THE CONTRACTOR BE UNABLE TO FOLLOW PLANS AND THERE IS A NEED TO DEVIATE FROM PLANS SIGNIFICANTLY, THE GENERAL CONTRACTOR MUST, USING ITS OFFICIAL FORM, MUST SEND REQUEST FOR INFORMATION (RFI) OR REQUEST FOR CLEARANCE TO THE ARCHITECT OF RECORD & COPY FURNISH THE ENGINEERS. THE RFI MUST BE CONCISE & SUPPORTED W/ SKETCH, DRAWINGS, CUT SHEET AND/OR OTHER MATERIALS THAT WILL HELP THE ENGINEERS RESPOND PRECISELY AND QUICKLY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE AND BEAR THE COSTS OF ANY ADDITIONAL CHARGES THAT MAY RESULT FROM PLAN DEVIATIONS WITHOUT AUTHORIZATION FROM OWNER OR ENGINEER.
- J. PLANS ARE SUBJECT TO CHANGE PENDING ALL REQUIRED CITY/MUNICIPALITY APPROVALS & PERMITS.

ELECTRICAL DRAWING SHEET INDEX

SHEET #	SHEET TITLE	REMARKS/ISSUE
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E2.1	LIGHTING PLAN & EMERGENCY PHOTO CALC	PLAN CHECK
E3.1	POWER & ELECTRICAL ROOF PLAN	PLAN CHECK
E4.1	DRAWING DETAILS	PLAN CHECK
E5.1	INTERIOR LIGHTING TITLE 24 SHEET 1	PLAN CHECK
E5.2	INTERIOR LIGHTING TITLE 24 SHEET 2	PLAN CHECK
E5.3	EXTERIOR LIGHTING TITLE 24 SHEET 3	PLAN CHECK
E5.4	EXTERIOR LIGHTING TITLE 24 SHEET 4	PLAN CHECK

DRAWN BY: SC
CHECK BY: EA
STAMPED/SIGNED: RH

fb+h

fonda-bonardi & hohman
architects

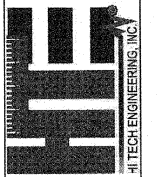
1450 23rd Street
Santa Monica, CA 90404
310-453-1134, 310-828-5830 fax
info@fbharchitects.com
www.fbharchitects.com

CLIENT
Tenant Improvement for
Joe's Grill
2912 Main Street
Santa Monica, CA
90405



17002-09 JOE'S GRILL

Consulting Mechanical
Electrical and
Plumbing Engineers
18311 S. Western Ave.
Torrance, CA 90508
Tel. No. 310-976-1658
info@meengineering.us
www.meengineering.us



CHANGES REVISIONS #1

DATE	DESCRIPTION
November 2016	As-Built Drawings
12/29/16	RFI AND SCHEMATIC DESIGN
1/23/17	Construction Drawings
1/30/2017	REVISED-ARB
2/20/2017	BIDDING
6/27/2017	PLAN CHECK
	PLAN CHECK REVISIONS
	CONSTRUCTION DOCUMENTS

GENERAL NOTES AND
SHEET INDEX

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6/06/17

E0.1

SYMBOLS	DESCRIPTION
	DUPLEX RECEPTACLE: 20A-125V, 2W GROUNDING TYPE, +15" A.F.F. U.O.N.
	DUPLEX AFCI RECEPTACLE: 20A-125V, 2W GROUNDING TYPE, +15" A.F.F. U.O.N.
	DUPLEX RECEPTACLE: 20A-125V, 2W GROUND FAULT CIRCUIT INTERRUPTER TYPE, +15" A.F.F. U.O.N.
	DUPLEX RECEPTACLE: 20A-125V, 2W + ISOLATED GROUND TYPE, +15" A.F.F. U.O.N.
	DUPLEX RECEPTACLE: 20A-125V-2P, 2W GROUNDING TYPE, CEILING MTD. U.O.N.
	WALL MOUNTED DOUBLE DUPLEX CONVENIENCE OUTLET, +18" OR AS NOTED
	QUADPLEX RECEPTACLE: 20A-125V, 2W GROUND FAULT CIRCUIT INTERRUPTER TYPE, +15" A.F.F. U.O.N.
	QUADPLEX RECEPTACLE: 20A-125V, 2W + ISOLATED GROUND TYPE, +15" A.F.F. U.O.N.
	SINGLE RECEPTACLE: 20A-125V, 2W GROUNDING TYPE, +15" A.F.F. U.O.N.
	DUPLEX RECEPTACLE: 20A-125V, 2W GROUNDING TYPE, +15" A.F.F. U.O.N. TWISTLOCK RECEPTACLE
	WALL MOUNTED HALF-SWITCHED DUPLEX CONVENIENCE OUTLET, +18" OR AS NOTED
	WALL MOUNTED SINGLE RECEPTACLE: 20A-220V GROUNDING TYPE, +15" A.F.F. U.O.N.
	WALL MOUNTED DATA OUTLET WITH 3/4" CONDUIT TO TERMINAL BOARD, +15" A.F.F. U.O.N.
	CEILING MOUNTED DATA OUTLET WITH 3/4" CONDUIT TO TERMINAL BOARD
	TELEPHONE OUTLET WITH 3/4" CONDUIT TO TEL. BACKBOARD, +15" A.F.F. U.O.N.
	COMBINATION TELEPHONE & DATA OUTLET, +15" A.F.F. U.O.N. WITH 3/4" CONDUIT TO DATA TERMINAL AND TELEPHONE BACKBOARD.
	FLOOR MOUNTED J-BOX FOR WORKSTATION POWER WHIP LOCATION. EA. WHIP SHALL HAVE 4 CIRCUITS PULLED TO EA. LOCATION (3 SHARED CIRCUITS PLUS 1 DEDICATED CIRCUIT). PROVIDE DATA CABLE PULL FOR 4 DROPS AT EA. WHIP LOCATION. LOCATE J-BOX 12" FROM PERIMETER WALL, U.N.O.
	CEILING MOUNTED DUPLEX/TELE/DATA OUTLETS
	DUPLEX RECEPTACLE OUTLET FLUSH IN FLOOR BOX
	208V. RECEPTACLE, RATING AS NOTED ON THE PLANS
	TELEVISION OUTLET WITH 3/4" CONDUIT TO TELEVISION TERMINAL, +15" A.F.F. U.O.N.
	1" DATA C.O. MIN. OR AS NOTED.
	1 1/4" DATA C.O.
	TELEPHONE CONDUIT 2" MINIMUM U.O.N.
	CABLE TRAY
	TTB, 4x8x3/4" FIRE RETARDANT PLYWOOD. PROVIDE 3/4" C-1#6 GRD. AND BOND TO COMMUNICATION BOARD.
	FUSED DISCONNECT SWITCH .EXO. H.P. RATED FOR MOTOR SERVED.
	NON FUSED DISCONNECT SWITCH .EXO. H.P. RATED FOR MOTOR SERVED.
	COMBINATION MOTOR STARTER SIZE 1 WITH A 30AMP, 3P DISCONNECT SWITCH
	MAGNETIC LINE VOLTAGE STARTER, SIZE '2'
	MAGNETIC LINE VOLTAGE STARTER, SIZE '2' WITH A 70 AMP 3 POLE C.B.
	CONTROL DEVICE AS INDICATED
	FROM FINISHED FLOOR TO CENTER LINE OF OUTLET OR EQUIPMENT
	COMBINATION CO AND SMOKE DETECTORS
	EXHAUST FAN. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION, QUANTITY AND ELECTRICAL REQUIREMENT.
	REFERENCE TO NOTE 2
	DENOTES EXISTING TO REMAIN
	REMOVE
	REMOVE & RELOCATE (INCLUDING CONDUITS & WIRES)
	GROUND
	SMR WITH OUTLETS AT 12" O.C. OR AS NOTED (WITH FIBER COMPLIANT FITTINGS)
	PHOTOCELL (EXTERIOR)
	PHOTOCELL (INTERIOR)
	THREE SINGLE PHASE CIRCUITS TO PANEL 'AME' WITH SEPARATE NEUTRAL
	TWO SINGLE PHASE CIRCUITS TO PANEL 'AME' WITH SEPARATE NEUTRAL
	ONE THREE PHASE CIRCUIT TO PANEL 'AME' - NO NEUTRAL
	ONE SINGLE PHASE CIRCUIT TO PANEL 'AME' - NO NEUTRAL
	HOMERUN TO PANEL OR CABINET AS DESIGNATED
	CONDUIT RUN CONCEALED ABOVE CEILING OR WALLS WITH 1/2" CONDUIT-2#12 +1#12 GND. UNLESS OTHERWISE NOTED.
	CONDUIT RUN CONCEALED BELOW FLOOR OR GRADE WITH 1/2" CONDUIT-2#12 UNLESS OTHERWISE NOTED.
	CONDUIT RUN EXPOSED
	CONDUIT STUB UP
	CONDUIT STUB DOWN

SYMBOLS	DESCRIPTION
	CONDUIT, STUBBED OUT AND CAPED
	3/4" C-3#12. PROVIDE #12 GREEN GROUND WIRE MIN. IN EACH CONDUIT RUN
	3/4" C-4#12. PROVIDE #12 GREEN GROUND WIRE MIN. IN EACH CONDUIT RUN
	3/4" C-5#12. PROVIDE #12 GREEN GROUND WIRE MIN. IN EACH CONDUIT RUN
	1" C-6#12. PROVIDE #12 GREEN GROUND WIRE MIN. IN EACH CONDUIT RUN
	FLUSH MOUNTED LIGHTING OR POWER PANELBOARD
	SURFACE MOUNTED LIGHTING OR POWER PANELBOARD
	FLUSH MOUNTED TERMINAL CABINET OR AS SHOWN
	SURFACE MOUNTED TERMINAL CABINET OR AS SHOWN
	SURFACE MOUNTED DISTRIBUTION PANELBOARD
	DISTRIBUTION SWITCHBOARD OR MOTOR CONTROL CENTER
	TRANSFORMER
	INDICATES LIGHTING FIXTURE TYPE "F1", SEE SCHEDULE FOR INFORMATION
	LIGHT FIXTURE-SURFACE, PENDANT MOUNTED OR RECESSED WITH ATTACHED JUNCTION BOX.
	LIGHT FIXTURE WALL MOUNTED WITH J-BOX
	FLUORESCENT FIXTURE-SURFACE MOUNTED WITH CEILING OUTLET
	FLUORESCENT FIXTURE-RECESSED WITH OUTLET
	FLUORESCENT FIXTURE-SURFACE STRIP OR UNDERCABINET
	FLUORESCENT FIXTURE-SURFACE WALL MOUNTED
	LIGHT FIXTURE ON EMERGENCY CIRCUIT
	EXIT SIGN LIGHTING FIXTURE. SHADED PORTION INDICATES FACE WITH DIRECTIONAL ARROWS AS INDICATED. PROVIDE (1) J-BOX EACH FOR NORMAL AND EMERGENCY CIRCUIT (ALSO INCLUDE LOW LEVEL EXIT SIGN AT EACH SYMBOL)
	TASK LIGHTING FIXTURE. SEE ARCH. DETAILS.
	SIGN OUTLET. VERIFY SERVICES' REQUIREMENT & LOCATION WITH SIGN INSTALLER
	NEW (N) SINGLE POLE TOGGLE SWITCH +48" OR AS NOTED SUBSCRIPTS AT SWITCH SYMBOLS. INDICATE THE FOLLOWING: 2 - DOUBLE POLE 3 - THREE WAY 4 - FOUR WAY D - DIMMER CONTROL SWITCH K - KEY OPERATED a, b, c, ETC. - IDENTIFICATION OF LIGHTING CONTROLLED
	P - PILOT LIGHT, RED JEWEL
	R - REMOTE CONTROL SWITCH
	m - MOTOR RATED
	M - MOMENTARY CONTACT
	T - TIMER
	2-HR. OVERRIDE SWITCH INTERFACED WITH T24 PROGRAMMABLE LIGHTING CONTROL RELAY PANELS OR ASTRONOMICAL TIME CLOCK. VERIFY AND COORDINATE EXACT LOCATION.
	DIMMER SWITCH BANK. VERIFY AND COORDINATE EXACT LOCATION.
	INTERIOR LIGHTING TIME CLOCK. VERIFY AND COORDINATE EXACT LOCATION.
	EXTERIOR LIGHTING TIME CLOCK. VERIFY AND COORDINATE EXACT LOCATION.
	MANUAL MOTOR STARTER. +48" OR AS NOTED (WITH THERMAL OVERLOAD)
	PUSHBUTTON STATION - SINGLE BUTTON, +48" OR AS NOTED
	START-STOP PUSHBUTTON STATION, +48" OR AS NOTED
	JUNCTION BOX, +18" OR AS NOTED
	JUNCTION BOX, ABOVE CEILING
	JUNCTION BOX, FLUSH IN FLOOR
	JUNCTION BOX, FLUSH IN CEILING
	PIGTAIL INDICATES CONNECTION TO EQUIPMENT (LFSC)
	WALL MOUNTED BI-LEVEL OCCUPANCY SENSOR SWITCH. PROVIDE 3/4" C-4#12 CONNECTION. (MINIMUM)
	WALL MOUNTED OCCUPANCY SWITCH. PROVIDE 3/4" C-3#12 CONNECTION. (MINIMUM)
	SWITCHPACK
	CEILING MOUNTED OCCUPANCY SENSOR SWITCH WITH SWITCH PACK AND LOCAL KEY-OVERRIDE SWITCH LISTED FOR DAMP LOCATION, WATT STOPPER #EN-200, OR EQUAL, WITH 3/4" C-3#12 CONNECTION (MINIMUM)
	MOTOR LOAD
	THERMOSTAT
	ELECTRIC UTILITY METER
	RETAIL TRAFFIC CEILING SENSOR LOCATED AT FRONT OF STORE. PROVIDE POWER AND DATA OUTLET. RUN CAT 5 CABLE TO CASH DESK AREA.
	REFERENCE TO DETAIL #X ON SHEET #XXX
	CHIME, BY GC OR AS NOTED

ABBREVIATIONS		ABBREVIATIONS	
A	AMPERE	GND/GRD	GROUND
AIC	AMPERE INTERRUPTING CAPACITY	GFU/GFCI	GROUND FAULT INTERRUPTER
AF	AMPERE FUSE	GN	GENERAL NOTES
AFCI	ARC FAULT CIRCUIT INTERRUPTER	HI	HEARING IMPAIRED
ALT	ALTERNATE	HP	HORSE POWER
AS	AMPERE SWITCH	HPF	HIGH POWER FACTOR
AF	AMPERE FUSE	HV	HIGH VOLTAGE
AT	AMPERE TRIP	LCP	LIGHTING CONTROL PANEL
BC	BARE COPPER	LF	LINEAR FEET
BKBD	BACKBOARD	LTG	LIGHTING
BLDG	BUILDING	MAX	MAXIMUM
C	CONDUIT	OFOI	OWNER FURNISHED, OWNER INSTALLED
CAB	CABINET	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
CB	CIRCUIT BREAKER	PC	PHOTOCELL
CKT	CIRCUIT	PNL	PANEL
CLF	COMPACT FLUORESCENT LAMP	PTS	PROGRAMMABLE TIME SWITCH
CLG	CEILING	RECEPT	RECEPTACLE
CO	CONDUIT ONLY	REQ	REQUIREMENT
CT	CURRENT TRANSFORMER	SAD	SEE ARCHITECTURAL DRAWINGS
CU	COPPER	SURF	SURFACE MOUNTED DEVICE OR EQUIPMENT
DA	DISABLE ACCESS	SW	SWITCH
DED	DEDICATED CIRCUIT	SWBD.	SWITCHBOARD
DOC	DOCUMENTS	SYS	SYSTEM
DISC	DISCONNECT	SYM	SYMMETRICAL
DN	DOWN	STD	STANDARD
DWG	DRAWINGS	SPECS	SPECIFICATION
EA	EACH	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
EDF	ELECTRIC DRINKING FOUNTAIN	TC	TIME CLOCK
EG.	EQUIPMENT GROUND	TERM	TERMINAL/TERMINATE
ELEC.	ELECTRICAL	TYP	TYPICAL
ENCL.	ENCLOSURE	TL	TASK LIGHT
EMH.	ELECTRICAL POWER MANHOLE	UG	UNDERGROUND
EXH.	EXHAUST	UON	UNLESS OTHERWISE NOTED
EP.	EXPLOSION PROOF	VA	VOLTAMPERES
EXO	EXTERNALLY OPERATED	VAV	VARIABLE AIR VOLUME
EXIST.	EXISTING	VFD	VARIABLE FREQUENCY DRIVE
(E) OR E	EXISTING TO REMAIN	VP	VAPOR PROOF
(N) OR N	NEW. PROVIDE ALL ACCESSORIES	VL	VERIFY EXACT LOCATION WITH OWNER/ARCHITECT
EM	EXISTING ITEM OF EMERGENCY CONDUIT	W	WATTS
FA.	FIRE ALARM	W/O	WITHOUT
FBO.	FURNISHED BY OTHERS	WP	WEATHER PROOF
FC	FOOT CANDLE	XFMR	TRANSFORMER
FCU	FAN COIL UNIT	Z	IMPEDANCE
FIXT	FIXTURE	&	AND
FLR	FLOOR	Ø	DIAMETER OR PHASE
FLEX	FLEXIBLE	#	NUMBER
FLUO	FLUORESCENT		

DEMOLITION NOTES

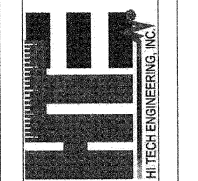
- CONTRACTOR SHALL VISIT THE SITE, INCLUDING THE SPECIFIC AREAS OF THE PROJECT, TO BE THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS, AND INCLUDE THEM IN THE PROJECT SCOPE OF WORK.
- EXISTING CIRCUITS THAT ARE INDICATED TO BE REMOVED, SHALL HAVE THEIR CONDUITS, WIRING, BOXES, ETC. COMPLETELY REMOVED BACK TO THE RESPECTIVE POWER SOURCE EQUIPMENT, AND THEIR CIRCUITS, IF NOT REUSED, IDENTIFIED AS SPARES.
- EXISTING CONDUITS, WHERE ADEQUATE, MAY BE REUSED, WITH THE PROVISION OF SUPPORTS COMPLYING WITH CURRENT CODE.
- COORDINATE ALL DEMOLITION WORK WITH OWNER/ARCHITECT AS TO PHASING OF CONSTRUCTION.
- ALL EXISTING WORK NOT INDICATED TO BE MODIFIED SHALL BE MAINTAINED. CONTRACTOR TO INCLUDE REROUTING AND MODIFICATION OF EXISTING CONDUIT & WIRING TO MAINTAIN CIRCUITS TO EXISTING DEVICES & EQUIPMENT THAT IS TO REMAIN.
- DRAWINGS INDICATE EXISTING CIRCUITING AS NOTED ON EXISTING AS-BUILT DWGS. CONTRACTOR TO VERIFY & ADJUST CIRCUITS TO CURRENT EXISTING CONDITIONS AS REQUIRED.
- CONTRACTOR TO BE RESPONSIBLE FOR MAINTAINING ALL ELECTRICAL SYSTEMS IN OPERATION, PROTECT IN PLACE EACH ELECTRICAL EQUIPMENT AND DEVICES WHICH ARE TO REMAIN.
- CONTRACTOR TO COORDINATE WITH OWNER WHICH MATERIALS/EQUIPMENT ARE BEING REMOVED UNDER DEMOLITION WHICH THE OWNER WANTS TO RETAIN AND THESE ITEMS SHALL BE TAGGED & BOXED AND TURNED OVER TO OWNER.
- WHEN NECESSARY, CONTRACTOR TO PROVIDE TO TEMPORARILY REROUTE, RELOCATE EXISTING ELECTRICAL EQUIPMENT & CIRCUITING (CONDUITS & WIRES), TO MAINTAIN THE CIRCUITING DURING CONSTRUCTION.
- COVER ALL HOLES IN FLOOR, WALLS & CEILING RESULTING FROM REMOVAL OF OUTLETS, PATCH TO MATCH ADJACENT SURFACE.
- REFER TO ARCHITECTURAL DRAWING FOR COMPLETE ADDITIONAL AND COMPLETE DEMOLITION INSTRUCTION AND REQUIREMENT.
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fb + h
fonda-bonardi & hohman architects
1450 23rd Street
Santa Monica, CA 90404
310-453-1134, 310-899-5800 fax
info@fbharchitects.com
www.fbharchitects.com

CLIENT
Tenant Improvement for
Joe's Grill
2912 Main Street
Santa Monica, CA
90405



17002-09 JOE'S GRILL
Consulting Mechanical
Electrical and
Plumbing Engineers
18311 S. Western Ave.
Torrance, CA 90508
Tel. No. 310-576-1553
info@macengineering.us
www.macengineering.us



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SYMBOLS LIST AND ABBREVIATIONS

LUMINAIRE SCHEDULE									
SYMBOLS	TYPE	DESCRIPTION	MANUFACTURE R	MODEL NO.	FINISH	WATTS	VOLT	LAMP	REMARKS
	A	2x4' EDGE-LIT PANEL	SYLVANIA	PANELF1A/040UNVD835/24G/WH	BY ARCHITECT	40	120	LED	SEE LUMINAIRE NOTES. DIMMING: 0-10V
	AE	SAME AS FIXTURE TYPE A, PROVIDE A MINIMUM 90 MINUTE EMERGENCY BACK-UP BATTERY	SYLVANIA	PANELF1A/040UNVD835/24G/WH EL	BY ARCHITECT	40	120	LED	SEE LUMINAIRE NOTES. DIMMING: 0-10V
	B	1x4' EDGE-LIT PANEL	SYLVANIA	PANELF1A/032UNVD835/14G/WH	BY ARCHITECT	32	120	LED	SEE LUMINAIRE NOTES.
	BE	SAME AS FIXTURE TYPE B WITH EMERGENCY BATTERY BACK-UP	SYLVANIA	ZL1N L48 3000LM FST 120 40K 80CRI E7W	BY ARCHITECT	32	120	LED	SEE LUMINAIRE NOTES.
	C	EXTERIOR WALL SCNCE	BARN LIGHT ELECTRIC	ATOMIC TOPLESS STREAMLINE	GALVANIZED METAL CAGE	17	120	LED	SEE LUMINAIRE NOTES.
	X	SINGLE FACE, RECESSED MOUNTED EDGE-LIT ACRYLIC BLADE EXIT LIGHT WITH 90 MIN. EMERGENCY BACK-UP BATTERY	THE EXIT LIGHT COMPANY OR EQUAL	ELRT-G OR EQUAL	BRUSHED ALUMINUM HOUSING, GREEN LETTER	3	120	LED	SEE LUMINAIRE NOTES.

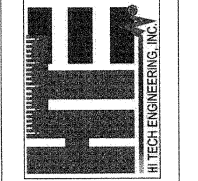
LUMINAIRE NOTES:

- VERIFY ELECTRICAL REQUIREMENT OF EACH LIGHTING FIXTURES WITH THE EQUIPMENT SUBMITTAL.
- NO SUBSTITUTION WILL BE ACCEPTABLE WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER/ARCHITECT.
- ALL LIGHTING FIXTURES AND ACCESSORIES SHALL BE UL LISTED AND APPROVED BY THE BUILDING DEPARTMENT.
- ELECTRICAL CONTRACTOR TO PROVIDE LIGHT FIXTURE, TRACK, LAMP, POWER FEEDS, CONNECTORS & MISC. ACCESSORIES AND HARDWARE AS REQ'D. FOR INSTALLATION.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN PLANS & DETAILS FOR MORE INFORMATION.
- VERIFY COMPATIBILITY OF LAMP SPECIFIED WITH THE LIGHT FIXTURE & BALLAST TYPE PROVIDED BY THE MANUFACTURER/OWNER PRIOR TO BIDDING OR ORDERING - NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- APPROVED EQUAL SUBSTITUTIONS SHALL BE UL LISTED.
- REFER TO LIGHTING PLAN FOR FIXTURES EQUIPPED W/ MINIMUM 90 MINUTES MINIMUM EMERGENCY BACK-UP BATTERY.
- LIGHT FIXTURE INSTALLED WITHIN THE FOOD SERVICE AREA SHALL BE SHATTERPROOF AS REQUIRED.
- PROVIDE ENERGY SAVING ELECTRONIC BALLAST.
- VERIFY AND COORDINATE EXACT LOCATION, QUANTITY, TRIM AND OTHER OPTIONS WITH OWNER/ARCHITECT.
- VERIFY AND COORDINATE CEILING TYPE WITH THE ARCHITECTURAL DRAWINGS.
- PROVIDE DIMMING BALLAST TO EACH FLUORESCENT LIGHTING FIXTURE CONTROLLED BY A DIMMER SWITCH.
- EXIT AND EMERGENCY LIGHT FIXTURE TYPES AND LOCATIONS ARE SUBJECT TO BUILDING DEPARTMENT AND LANDLORD APPROVAL.
- ALL LIGHT FIXTURES, EQUIPMENT, WIRING METHODS, ETC., WITH IN CEILING RETURN AIR PLENUM SHALL COMPLY WITH CEC, AND ANY ADDITIONAL BUILDING DEPARTMENT REQUIREMENTS. VERIFY IF ANY ADDITIONAL REQUIREMENTS WITH BUILDING DEPARTMENT AND TENANT'S ARCHITECT PRIOR TO BID.
- VERIFY AND COORDINATE EXACT QUANTITY, LOCATION, MOUNTING AND ALL OTHER OPTIONS OF EACH LIGHTING FIXTURES WITH THE ARCHITECTURAL DRAWINGS.

EQUIPMENT SCHEDULE															
ITEM	DESCRIPTION	QTY	MANUFACTURE/MODEL NO.	REMARKS	PLUMBING				ELECTRICAL						
					HW	CW	CONN	MBTU	DIR.	L.W.	REMARKS	VOLT.	KW	AMPS	HP
1	HOT WATER HEATERS	2	NORITZ #NCC1991-0D	09/11/17	1/2"	3/4"	199 EA	1"	VERIFY W/PLUMBER	120	4.0		1	X	ON ROOF. VERIFY W/G.C.
2	MOP SINK W/FAUCET	1	GSW #SE1922FM	1/2"	1/2"			2"	TRAP BELOW FLOOR						
3	SPARE NUMBER														
4	MOP/BROOM HANGER	1	ADVANCE #K-242												
5	CHEMICAL SHELF	1	CUSTOM ST/ST												
6	SPARE NUMBER														
7	PREP TABLE W/SINK	1	GSW #SE18181R					1-1/2"	EXTEND I.W. TO F.S.	120	11.8		1	X	WALL MOUNTED DCO
8	SINK FAUCET	1	FISHER #3312		1/2"	1/2"									
9	WALL SHELVES	2	GSW #WS-W1442										1	X	WIRE THRU DOOR ACTVATED MICRO-SWITCH
10	AIR CURTAIN	1	MARS #STD236-1U												
11	SPARE NUMBER														
12	SPARE NUMBER														
13	HAND SINK	1	GSW #HS16185S		1/2"	1/2"		1-1/2"	DIRECT WASTE						
14	THREE COMPARTMENT SINK	1	GSW #SE18183D					2"	DIRECT WASTE						
14A	WALL SHELVES	2	GSW #WS-W1436												
14B	POT/UTENSIL RACK	1	ADVANCE #GW-84												
15	PRE RINSE FAUCET	1	T & S #B-0133-ADF12-B		1/2"	1/2"									
16	REACH-IN FREEZER	1	TRUE #T-72F							120	12.0		1	X	NEMA 5-20P, CORD & PLUG
17	REACH-IN REFRIGERATOR	1	TRUE #T-72							120	12.0		1	X	NEMA 5-20P, CORD & PLUG
18	STORAGE SHELVING	1	TITAN SERIES												
19	RRFAD RACK	1		BY OWNER											
20	TWO OPEN BURNER RANGE	1	VULCAN #VORH12					3/4"	50						
20A	QUICK DISCONNECT	1	DORMONT #1675KITZS-48												
21	EXHAUST FAN SYSTEM	1 LOT		BY G.C.						240	*		3	X	ON ROOF. VERIFY W/G.C.
22	EXHAUST HOOD	1	CAPTIVE AIRE							120	6.0		1	X	HOOD LIGHTS, WIRE THUR SWITCH
23	FIRE SUPPRESSION SYSTEM	1	ANSUL #R-102												
24	GRIDDLE RANGE	1	VULCAN #48RRG					3/4"	82.5	120	1.0		1	X	NEMA 5-15P, CORD & PLUG
24A	QUICK DISCONNECT	1	DORMONT #1675KITZS-48												
25	TOASTER	1	PRINCE CASTLE #TX-240							240	19.2		1	X	NEMA L6-30P, CORD & PLUG. FIXT. MTD. OUTLET
26	WORKTABLE	1	GSW #WT-PB3030												
27	REFRIGERATED TABLE	1	TRUE #TSSU-48-12							120	8.6		1	X	SELF-CONTAINED, FIXT. MTD. OUTLET
28	FRYER	1	FRYMASTER #PMU135					3/4"	110						
28A	QUICK DISCONNECT	1	DORMONT #1675KITZS-48												
29	SHORTY REFRIGERATOR	1	TRUE #TRCB-60							120	8.1		1	X	SELF-CONTAINED
30	SPARE NUMBER														
31	WALL SHELVES	2	GSW #WS-W1496 & W1448												
32	WORKTOP FREEZER	2	TRUE #TW-48F							120	6.1		1	X	SELF-CONTAINED
33	FRY DUMP	1	HATCO #GRFFB (14" CLEAR)							120	6.3		1	X	NEMA 5-15P, CORD & PLUG
34	LIQUID DISPENSER	1	SURESHOT	BY OWNER						120	1.0		1	X	NEMA 5-15P, CORD & PLUG
35	SPINDLE MIXER	1	HAMILTON BEACH #94950120							120	5.2		1	X	
36	ICE MACHINE	1	MANITOWOC #ID-1202A					1/2"		240	25.0		1	X	EXTEND I.W. TO F.S.
37	SODA/ICE DISPENSER	1		BY SODA VENDOR				1/2"		120	5.0		1	X	VERIFY W/VENDOR
38	BAG N BOX SYSTEM	1		BY SODA VENDOR						120	10.0		1	X	VERIFY W/VENDOR
39	CARBONATOR	1		BY SODA VENDOR											
40	WATER FILTER	1	EVERPURE #PF-7FCS					1/2"							
41	OVERSHELVES	1	TRUE #B3003												
42	FOOD WARMER	1	WELLS #SC-11							120	13.7		1	X	NEMA 5-15P, CORD & PLUG
43	WORKTABLE	1	GSW #WT-PB3048												
44	FRONT COUNTER	1	CUSTOM ST/ST												
45	EMPLOYEE LOCKERS	1	GSW #ELS-5DR												
46	SPARE NUMBER														
47	CO2 TANK	1		BY VENDOR											
48	HOOD ENCLOSURE	1	CUSTOM ST/ST												
49	POS TERMINALS	1		BY OWNER						120	5.0		1	X	DIFFICATED CIRCUIT COMMUNICATION CABLE
50	WALL FLASHING	1	CUSTOM ST/ST												
51	PASS WINDOW AND SHELF	2	CUSTOM ST/ST												

KITCHEN EQUIPMENT SCHEDULE NOTES:

- VERIFY ELECTRICAL REQUIREMENT OF EACH KITCHEN EQUIPMENT WITH THE EQUIPMENT SUBMITTAL.
- VERIFY AND COORDINATE EXACT LOCATION AND POINT OF CONNECTION WITH THE KITCHEN EQUIPMENT DRAWINGS.
- VERIFY AND COORDINATE PLUG/RECEPTACLE TYPE WITH THE EQUIPMENT SUBMITTAL.



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CHANGES REVISIONS #1

LUMINAIRE & KITCHEN
EQUIPMENT SCHEDULE

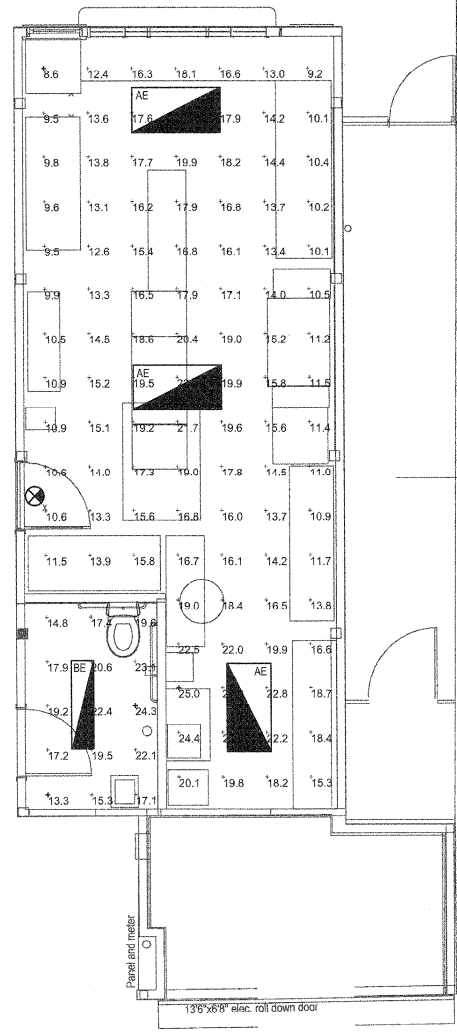
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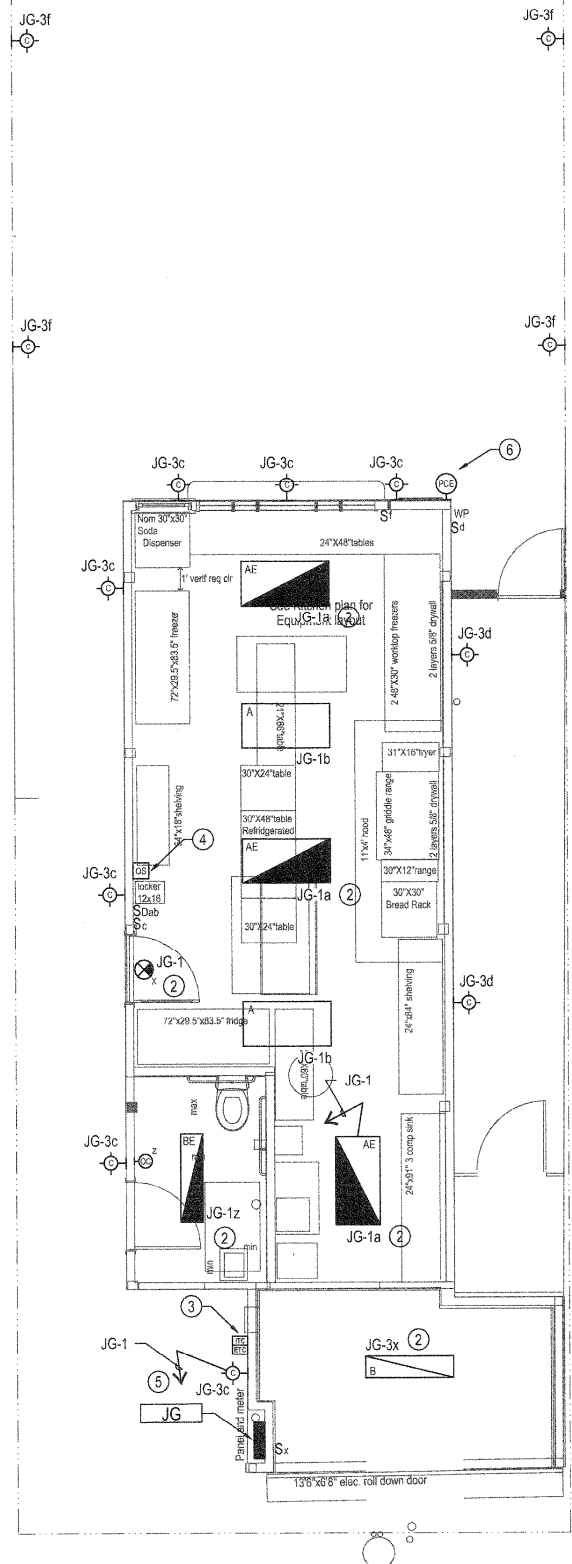


09/11/17
17BLD-0344

STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	15.7 fc	25.0 fc	8.6 fc	2.9:1	1.8:1
Calc Zone #2	+	18.9 fc	24.3 fc	13.3 fc	1.8:1	1.4:1



EMERGENCY LIGHTING PHOTO CALC SCALE: 1/4" = 1'-0" 2



LIGHTING PLAN SCALE: 1/4" = 1'-0" 1

GENERAL NOTES:

- A. ALL LIGHTING FIXTURES WITHIN PREPARATION, FOOD SERVICE AND KITCHEN AREA SHALL BE SHATTERPROOF AS REQUIRED. VERIFY LOCATION OF EACH LIGHT FIXTURE BEFORE ROUGH-IN. PROVIDE AS REQUIRED.
- B. PROVIDE HVAC CONTROL REQUIREMENT. REFER TO MECHANICAL DRAWING FOR INFORMATION.
- C. COORDINATE AND VERIFY ALL ELECTRICAL WORK SHOWN ON THE PLAN WITH ARCHITECT. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO START OF THE WORK
- D. ALL RACEWAY EXPOSED WIDELY TO DIFFERENT TEMPERATURES SHALL PROVIDE EXPANSION FITTINGS AND BE SEALED TO PREVENT CIRCULATION OF WARM TO COLD AIR. (SECTION 300-7 (A) & (B))
- E. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL ARCHITECTURAL AND CONSULTANT DRAWINGS AND INCLUDE IN HIS BID ALL THE ELECTRICAL CONNECTIONS, EQUIPMENT, ACCESSORIES, CONDUITS, BOXES, ETC., THERE INDICATED TO BE BY ELECTRICAL CONTRACTOR.
- F. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT. KEEP 3 FEET CLEARANCE IN FRONT OF ELECTRICAL PANELBOARD AND EQUIPMENT.
- G. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL J-HOOKS, CONDUITS AND OTHER EQUIPMENT REQUIRED BY DATA CABLING CONTRACTOR. OBTAIN THESE REQUIREMENT BEFORE SUBMITTING THE BID.
- H. ALL ELECTRICAL CIRCUIT WIRING SHALL BE PROVIDED WITH GROUND WIRE.
- I. PHOTOSENSORS SHALL BE LOCATED SO THAT THEY ARE NOT READILY ACCESSIBLE TO UNAUTHORIZED PERSONNEL, AND THE LOCATION WHERE CALIBRATION ADJUSTMENTS ARE MADE TO AUTOMATIC DAYLIGHTING CONTROLS SHALL NOT BE READILY ACCESSIBLE TO UNAUTHORIZED PERSONNEL.
- J. AUTOMATIC DAYLIGHTING CONTROLS SHALL PROVIDE FUNCTIONAL MULTI-LEVEL LIGHTING HAVING AT LEAST THE NUMBER OF CONTROL STEPS SPECIFIED IN TABLE 130. 1-A.
- K. FOR EACH SPACE, THE COMBINED ILLUMINANCE FROM THE CONTROLLED LIGHTING AND DAYLIGHT SHALL NOT BE LESS THAN THE ILLUMINANCE FROM CONTROLLED LIGHTING WHEN NO DAYLIGHT IS AVAILABLE.
- L. IN AREAS SERVED BY LIGHTING THAT IS DAYLIGHT CONTROLLED WHEN THE ILLUMINANCE RECEIVED FROM THE DAYLIGHT IS GREATER THAN 150 PERCENT OF THE DESIGN ILLUMINANCE RECEIVED FROM THE GENERAL LIGHTING POWER IN THAT DAYLIGHT ZONE SHALL BE REDUCED BY A MINIMUM OF 65 PERCENT.
- M. LIGHTING:
 - IN EVERY ROOM AND AREA IN WHICH FOOD IS PREPARED, PROCESSED OR PACKAGED, OR IN WHICH UTENSILS ARE CLEANED, SUFFICIENT NATURAL OR ARTIFICIAL LIGHTING SHALL BE PROVIDED TO PRODUCE THE FOLLOWING LIGHT INTENSITY WHILE THE AREA IS IN USE:
 - a. AT LEAST 10-FOOT CANDLES AT A DISTANCE OF 30 INCHES ABOVE THE FLOOR IN WALK-IN REFRIGERATION UNITS AND DRY FOOD STORAGE AREAS.
 - b. AT LEAST 20-FOOT CANDLES WHERE FOOD IS PROVIDED FOR CONSUMER SELF-SERVICE, WHERE FRESH PRODUCE OR PREPACKAGED FOODS ARE SOLD OR OFFERED FOR CONSUMPTION, INSIDE EQUIPMENT SUCH AS REACH-IN AND UNDER-COUNTER REFRIGERATORS, HANDWASHING AREAS, WAREWASHING AREAS, EQUIPMENT AND UTENSIL STORAGE AREAS, AND IN TOILET AREAS.
 - c. AT LEAST 50-FOOT CANDLES AT SURFACES WHERE A FOOD EMPLOYEE IS WORKING WITH FOOD OR WITH UTENSILS, EQUIPMENT SUCH AS KNIVES, SLICERS, GRINDERS, OR SAWS WHERE EMPLOYEE SAFETY IS A FACTOR, AND IN OTHER ROOMS DURING PERIODS OF CLEANING. LIGHT BULBS SHALL BE SHIELDED, COATED, OR OTHERWISE SHATTER-RESISTANT IN AREAS WHERE THERE ARE IN-PREPACKAGED READY-TO-EAT FOODS, CLEAN EQUIPMENT, UTENSILS, AND LINENS, OR UNWRAPPED SINGLE-USE ARTICLES.
- N. ALL LIGHTING FIXTURES/EQUIPMENT SHALL BE U.L. LISTED, LABELED AND APPROVED BY THE CITY.
- O. ANY EQUIPMENT OR MATERIALS INSTALLED IN PLENUM CEILING SHALL BE UL APPROVED AND COMPLY WITH LOCAL CITY CODE FOR USE IN THIS LOCATION.
- P. STORE SIGN/S AND ALL EXTERIOR LIGHTING SHALL BE CONNECTED TO A SEVEN DAY, TWENTY-FOUR HOUR EXTERNAL TIME CLOCK (ETC).
- Q. ALL INTERIOR LIGHTING CIRCUITS SHALL BE CONNECTED TO A SEVEN DAY, TWENTY-FOUR HOUR INTERNAL TIME CLOCK (ITC).
- R. EXHAUST FAN IN THE RESTROOM SHALL BE ACTIVATED BY THE LIGHT SWITCH.

REFERENCE NOTES:

- ① SWITCHES TO BE MOUNTED A MAXIMUM OF 46" AFF TO CENTERLINE. ARRANGE SWITCHES IN TWO ROWS OF GANGED BOXES AS REQUIRED. COORDINATE SWITCH LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION. REFER TO ARCHITECTURAL SHEETS FOR MORE INFORMATION.
- ② PROVIDE UNCONTROLLED HOT WIRE TO EACH EMERGENCY AND EXIT LIGHTING AS REQUIRED.
- ③ TIME CLOCK AND LIGHTING CONTACTOR CABINET: PROVIDE INTERLOCK WIRING FROM OVERRIDE SWITCH TO TIME CLOCK CONTROLLER. VERIFY AND COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT.
- ④ PROVIDE MIN. 2 HR OVERRIDE SWITCH. VERIFY AND COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT.
- ⑤ PROVIDE CONNECTION TO EXTERIOR TIME CLOCK AND PHOTOCCELL.
- ⑥ EXTERIOR PHOTOSENSOR SWITCH. VERIFY AND COORDINATE EXACT LOCATION AT FIELD. REFER TO PANEL SCHEDULE ON SHEET E0.3 FOR ADDITIONAL INFORMATION.

fb+h
fonda-bonardi & hohman
architects

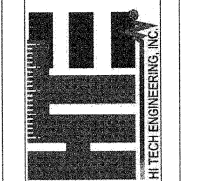
1450 23rd Street
Santa Monica, CA 90404
310-453-1134, 310-828-8830 fax
info@fbharchitects.com
www.fbharchitects.com

CLIENT
Tenant Improvement for
Joe's Grill
2912 Main Street
Santa Monica, CA
90405



17002-09 JOE'S GRILL

**Consulting Mechanical
Electrical and
Plumbing Engineers**
18311 S. Western Ave.
Torrance, CA 90548
Tel. No. 310-576-1655
info@hachengengineering.us
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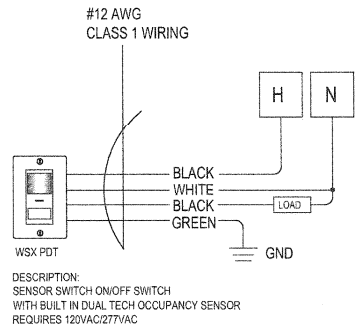


DATE	DESCRIPTION
November 2016	As-Built Drawings
12/29/16	ARB and SCHEMATIC DESIGN
1/28/17	Construction Drawings
1/30/2017	REVISED ARB
2/20/2017	BIDDING
8/27/2017	PLAN CHECK
	PLAN CHECK/REVISIONS
	CONSTRUCTION DOCUMENTS

LIGHTING PLAN &
EMERGENCY PHOTO
CALC

Piperplot 4.0 CD.plt
6/06/17

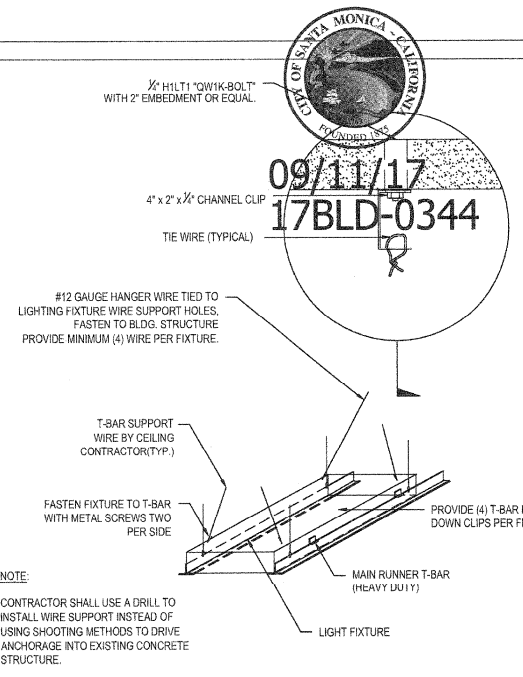
E2.1



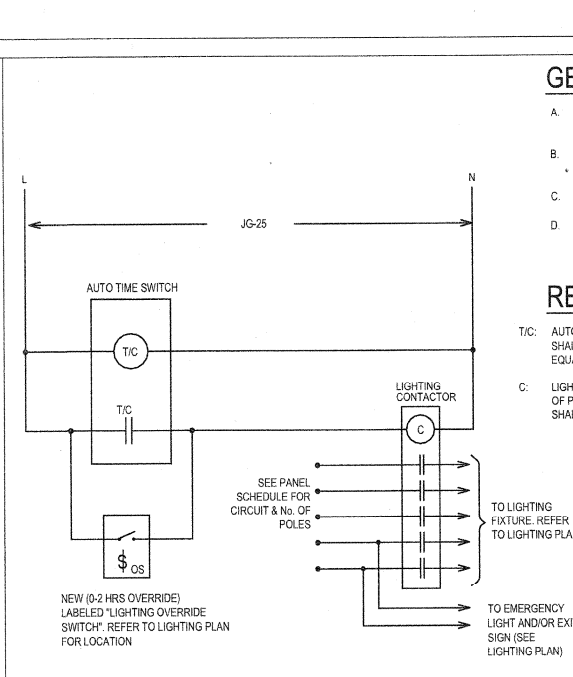
DESCRIPTION:
SENSOR SWITCH ON/OFF SWITCH
WITH BUILT IN DUAL TECH OCCUPANCY SENSOR
REQUIRES 120VAC/277VAC

OPERATION DETAILS:

- OCCUPANCY SENSOR PROVIDES AUTOMATIC ON/OFF OF LIGHTS BASED ON ROOM OCCUPANCY. (USE DEFAULT TIME DELAY FOR OCCUPANCY SENSOR).
- WSX PDT LINE VOLTAGE SWITCH PROVIDES MANUAL OVERRIDE OF THE LIGHTS AND EXHAUST FAN: ON/OFF.



NOTE:
CONTRACTOR SHALL USE A DRILL TO
INSTALL WIRE SUPPORT INSTEAD OF
USING SHOOTING METHODS TO DRIVE
ANCHORAGE INTO EXISTING CONCRETE
STRUCTURE.



GENERAL NOTES:

- TIME CLOCK SHALL BE CERTIFIED AS REQUIRED BY THE STATE ENERGY CODE.
- REFER TO MANUFACTURER'S MANUAL FOR EXACT WIRING REQUIREMENTS.
- REFER TO PANEL SCHEDULE FOR LIGHTING LOAD.
- TIME CLOCK SHALL BE 365-DAY PROGRAMMABLE WITH 10 HOUR BATTERY BACK-UP.

REFERENCE NOTES:

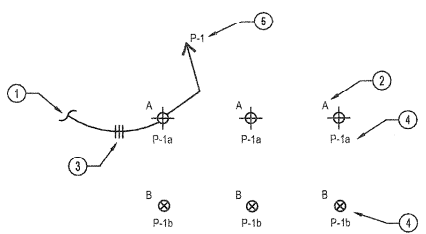
- AUTO TIME SWITCH 365 DAYS PROGRAMMABLE SHALL BE ET-8000 SERIES "INTERMATIC" OR EQUAL.
- LIGHTING CONTACTOR, 120V COIL, 30A, POLE: NO. OF POLE AS REQUIRED LIGHTING CONTACTOR SHALL BE SQUARE D OR EQUAL.

WALL MOUNT OCC SENSOR FOR RESTROOM

7

REFERENCE NOTES:

- PROVIDE CONNECTION TO CONTROL (SINGLE OR BI-LEVEL SWITCH, DIMMER SWITCH BANK) AND AS NOTED ON THE LIGHTING PLAN.
- DENOTES LUMINAIRE TYPE. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION.
- NUMBER OF TRICK MARKS REPRESENT ONE COMMON WIRE PLUS SWITCH LEG "a" AND SWITCH LEG "b".
- DENOTES PANEL AND CIRCUIT NUMBER. PROVIDE CONNECTION BETWEEN LUMINAIRE CONNECTED ON THE SAME CIRCUIT.
- REFER TO SYMBOLS LIST ON SHEET E0.1 FOR NAMING DESCRIPTION. EACH LIGHTING CIRCUIT SHALL BE CONNECTED TO TIME CLOCK/LIGHTING CONTROL OR BUILDING MANAGEMENT SYSTEM AS REQUIRED.

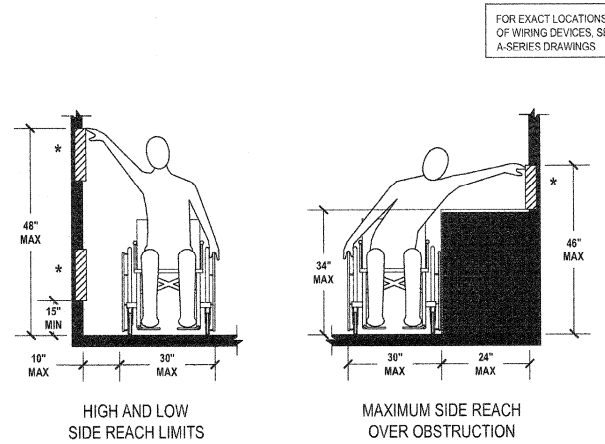


LEGEND:

- P PANEL DESIGNATION
- 1 CIRCUIT NUMBER
- a SWITCH LEG

RECESSED FLUOR. FIXT SEISMIC MOUNT. DETAIL

6



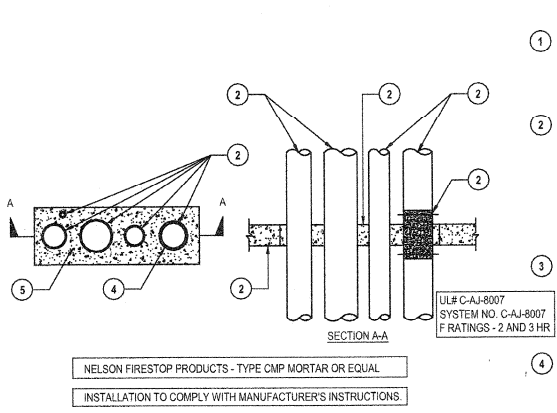
HIGH AND LOW
SIDE REACH LIMITS

MAXIMUM SIDE REACH
OVER OBSTRUCTION

ELECTRICAL LIGHT SWITCH
OR RECEPTACLE LOCATION,
INSTALL PER ADA STANDARD

SCHEMATIC TIME CLOCK CONTROL DIAGRAM

1



REFERENCE NOTES:

- FLOOR & WALL ASSEMBLY - MIN. 3/4 IN THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED ON ANY UL CLASSIFIED CONCRETE BLOCKS. MAX OF OPENING IS 300 SQ IN WITH MAX DIMENSION OF 30 IN.
- THROUGH PENETRANTS - A MAX OF FIVE CONDUITS SPACE BETWEEN CONDUITS OR TUBING SHALL BE MIN 1/2 IN. TO MAX 1/2 IN. THE SPACE BETWEEN CONDUITS OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN 1/4 IN. TO MAX 1/2 IN. CONDUITS, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES FOR FLOOR OR WALL ASSEMBLY. CONDUIT-NOM 4 IN. DIA. (OR SMALLER) ELECTRICAL METALLIC TUBING OR NOM 6 IN. (OR SMALLER) RIGID STEEL CONDUIT.
- FORMS (NOT SHOWN) FORMS TO BE RIGID SHEET MATERIAL. CUT IT FIT THE CONDUCTOR OF THE PENETRATING ITEM AND FASTENED TO THE UNDERSIDE OF FLOOR OR BOTH SIDES OF WALL. FORMS TO BE REMOVED AFTER FILL MATERIAL HAS CURED.
- FILL VOID OR CAVITY MATERIAL WRAP MATERIAL - SINGLE LAYER OF A CERAMIC FIBER INSULATION COVERED ON BOTH SURFACES WITH A FOIL FACING. THE WRAP MATERIAL SHALL EXTEND A MIN. OF 6 IN. BEYOND BOTH SURFACES OF THE ASSEMBLY AND SHALL BE SECURED TOGETHER WITH MIN. NO. 12 AWG STEEL WIRE FILL VOID OR CAVITY MATERIAL MORTAR.
- FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL.

SCHEMATIC LIGHTING CIRCUIT CONNECTIONS

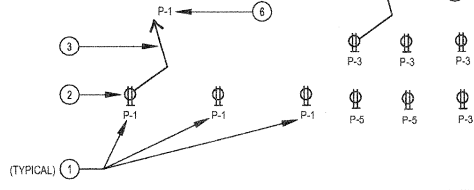
8

REFERENCE NOTES:

- PROVIDE CONNECTION TO EACH RECEPTACLE OUTLET WITH THE SAME DESIGNATION. 3/4" C-2#12 + 1#12 GND MINIMUM OR AS NOTED ON THE PLAN.
- DUPLEX RECEPTACLE OR AS SHOWN ON PLAN.
- CIRCUIT HOMERUN. 3/4" C-2#12 + 1#12 GND MINIMUM.
- INDICATES PANEL AND CIRCUIT HOMERUN DESIGNATION.
- INDICATES 3/4" C-4#12 + 1#12 GND MINIMUM. (2 HOT WIRE + 2 NEUTRAL WIRE + 1 GROUND WIRE).
- REFER TO SYMBOLS LIST ON SHEET E0.1 FOR DESCRIPTION OF NAMING DESCRIPTION.

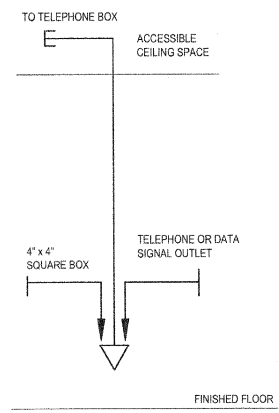
LEGENDS:

- P DENOTES PANEL BOARD DESIGNATION
- 1-3-5 DENOTES CIRCUIT NUMBER



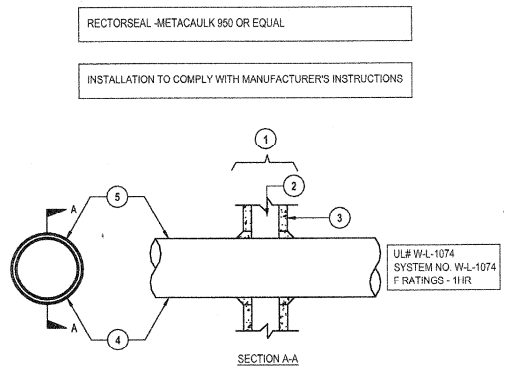
ACCESSIBLE REACH LIMITS

5



FIRE PENETRATION ASSEMBLY CONCRETE WALL/FLOOR

2



REFERENCE NOTES:

- WALL ASSEMBLY - THE FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY.
- STUDS - WALL FRAMING WOOD STUDS OR STEEL CHANNEL STUDS.
- WALLBOARD GYPSUM - ONE LAYER OF NOM 1/2 IN. THICK GYPSUM WALLBOARD.
- CONDUIT TO BE SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE ANNULAR SPACE BETWEEN THE THROUGH - PENETRANT AND THE PERIPHERY OF THE OPENING SHALL BE MIN. 0 IN. TO MAX 1/4 IN. THE FOLLOWING TYPES OF CONDUITS OR TUBING MAY BE USED: CONDUIT-NOM 6 IN. DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
- FILL VOID OR CAVITY MATERIAL - CAULK - FILL MATERIAL TO BE FORCED INTO THE ANNULUS TO MAXIMUM EXTENT POSSIBLE. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 1/4 IN. CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING 1/4 IN. BEYOND THE PERIPHERY OF THE OPENING.

SCHEMATIC POWER CKT CONN.

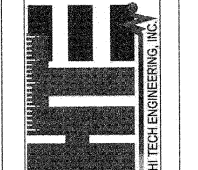
9

TYP TELEPHONE & DATA SIGNAL OUTLET

4

FIRE PENETRATION GYPSUM WALL ASSEMBLY

3



November 2016	As-Built Drawings
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6/27/2017	PLAN CHECK
	PLAN CHECK REVISIONS
	CONSTRUCTION DOCUMENTS

CHANGES/REVISIONS #1

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DRAWING DETAILS

--	--	--	--	--	--	--	--	--	--

A. General Information

Climate Zone: Conditioned Floor Area: 487
 0 Unconditioned Floor Area: 0

Building Type: Nonresidential High-Rise Residential Hotel/Motel
 Schools Relocatable Public Schools Conditioned Spaces Unconditioned Spaces

Phase of Construction: New Construction Addition Alteration

Method of Compliance: Complete Building Area Category Tailored

Project Address: 2912 MAIN STREET

B. Lighting Compliance Documents (select yes for each document included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.

YES	NO	COMP. DOC.	TITLE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-01-E	Certificate of Compliance. All Pages required on plans for all submittals.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-02-E	Lighting Controls, Certificate of Compliance, and PAF Calculation. All Pages required on plans for all submittals.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-03-E	Indoor Lighting Power Allowance
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-04-E	Tailored Method Worksheets
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-05-E	Line Voltage Track Lighting Worksheets
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-06-E	Indoor Lighting Existing Conditions

C. Summary of Allowed Lighting Power

Conditioned and Unconditioned space Lighting must not be combined for compliance

Indoor Lighting Power for Conditioned Spaces			Indoor Lighting Power for Unconditioned Spaces		
Row	Installed Lighting	Watts	Row	Installed Lighting	Watts
01	NRCC-LTI-01-E, Table H, page 5 Portable Only for Offices	+ 264	01	NRCC-LTI-01-E, Table H, page 5	+ 0
02	NRCC-LTI-01-E, Table G, page 4 Minus Lighting Control Credits NRCC-LTI-02-E, page 2	- 0	02	Minus Lighting Control Credits NRCC-LTI-02-E, page 2	- 0
03	Adjusted Installed Lighting Power (row 1 plus row 2 minus row 3)	= 264	03	Adjusted Installed Lighting Power (row 1 minus row 3)	= 0
Complies ONLY if Installed ≤ Allowed (Box 04 < Box 05)			Complies ONLY if Installed ≤ Allowed (Box 04 < Box 05)		
Allowed Lighting Power Conditioned NRCC-LTI-03-E, page 1			Allowed Lighting Power Unconditioned NRCC-LTI-03-E, page 1		
05			05		
551			0		

Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-05, page 2

D. Declaration of Required Certificates of Installation

Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)

YES	NO	Compliance Document/Title	Field Inspector
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/> Field Inspector

E. Declaration of Required Certificates of Acceptance

Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)

YES	NO	Compliance Document/Title	Field Inspector
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/> Field Inspector

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:

CONDITIONED SPACE UNCONDITIONED SPACE

F. Indoor Lighting Schedule and Field Inspection Energy Checklist

The actual indoor lighting power listed on the next 2 pages includes all installed permanent and planned portable lighting systems.

When Complete Building Method is used for compliance, list each different type of luminaire on separate lines.

When Area Category Method or Tailored Method is used for compliance, list each different type of luminaire by each different function area on separate lines

Also include track lighting in schedule, and submit the track lighting compliance document (NRCC-LTI-05-E) when line-voltage track lighting is installed.

G. Installed Portable Luminaires in Offices - Exception to Section 140.6(a)

This section shall be filled out ONLY for portable luminaires in offices (As defined in §100.1). All other planned portable luminaires shall be documented on next page of this compliance document.

This section is used to determine if greater than 0.3 watts of portable lighting is planned for any office

Fill out a separate line for each different office. Small offices that are typical (having the same general and portable lighting) may be grouped together. This allowance shall not be traded between offices having different lighting systems.

Office Portable Luminaire Schedule		Office Installed Portable Luminaire W/ft ²					Office Location		Field Inspector	
1	2	3	4	5	6	7	8	9	10	
Complete Luminaire Description (i.e., LED, under cabinet, furniture mounted direct/indirect)	Watts per Luminaire	Number of Luminaires	Installed portable luminaire watts in this office (G02 x G03)	Square feet of this office	Watts per square foot (G04 / G05)	If G06 ≤ 0.3, enter zero; if G06 > 0.3, (G06-0.3)	(G05 x G07)	Identify Office area in which these portable luminaires are installed	Pass	Fail
									<input type="checkbox"/>	<input type="checkbox"/>
									<input type="checkbox"/>	<input type="checkbox"/>
									<input type="checkbox"/>	<input type="checkbox"/>
									<input type="checkbox"/>	<input type="checkbox"/>
									<input type="checkbox"/>	<input type="checkbox"/>
Total installed portable luminaire watts that are greater than 0.3 W/ft ² per office:									Enter sum total of all pages into NRCC-LTI-01-E, Page 1	

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:

CONDITIONED SPACE UNCONDITIONED SPACE

H. Indoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule	Installed Watts				Location	Field Inspector			
	01	02	03	04		05	06	07	08
Name or Item Tag	Complete Luminaire Description (i.e., 3 lamp fluorescent troffer, F3278, one dimmable electronic ballast)		Watts per Luminaire	How wattage was determined (i.e., per luminaire, per area)	Number of Luminaires	Total Installed Watts in this area (G05 x G07)	Primary Function area in which these luminaires are installed	Pass	Fail
B/BE	2'X4' EDGE-LIT PANELS	40.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5	200	Kitchen, Food Preparation	<input type="checkbox"/>	<input type="checkbox"/>
C/CE	1'X4' EDGE-LIT PANEL	32.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	64	Corridor/Restroom/Support	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						264	Enter sum total of all pages into NRCC-LTI-01-E, Page 2		

DECLARATION OF AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: RAMON EDRIK HILARIO
 Signature Date: 6/5/2017
 Address: 18311 SOUTH WESTERN AVE.
 City/State/Zip: TORRANCE, CA 90248
 Phone: 310-576-1553

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

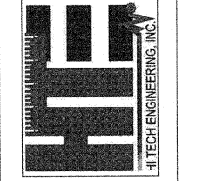
Responsible Designer Name: RAMON HILARIO
 Signature Date: 6/5/2017
 Address: 18311 SOUTH WESTERN AVE.
 City/State/Zip: TORRANCE, CA 90248
 Phone: 310-576-1553

CLIENT
 Tenet Improvement for
 Joe's Grill
 2912 Main Street
 Santa Monica, CA
 90405



17002-09 JOE'S GRILL

Consulting Mechanical and Electrical Engineers
 Plumbing Engineers
 18311 S. Western Ave.
 Torrance, CA 90248
 Tel. No. 310-576-1553
 info@hitechengineering.us
 www.hitechengineering.us



CHANGES/REVISIONS #1

NO.	DATE	DESCRIPTION
1	12/29/16	As-Built Drawings
2	1/28/17	ARB and SCHEMATIC DESIGN
3	1/30/2017	Consultation Drawings
4	2/20/2017	REVISED ARB
5	6/27/2017	BIDDING
6		PLAN CHECK
7		PLAN CHECK REVISIONS
8		CONSTRUCTION DOCUMENTS

INTERIOR LIGHTING TITLE
 24 SHEET 1

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	Control Requirements
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(d).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 130.4(b).
<input type="checkbox"/>	<input type="checkbox"/>	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
<input type="checkbox"/>	<input type="checkbox"/>	All luminaires shall be functionally controlled with manually switched ON and OFF lighting controls in accordance with Section 130.1(a).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled, in accordance with Section 130.1(a).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-Off control requirements in Section 130.1(c).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylight zones are shown on the plans.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(e).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4 (a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-off controls, and demand responsive controls.

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection

Control Credit PAGE TOTAL (Sum of Column 13): 0
 IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13): 0
 Enter Control Credit total into NRCC-LTI-01-E, Page 1.

1. §130.1(a) = Manual area controls; §130.1(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive; §140.6(d) = Additional lighting controls installed to earn a PAF; §140.6(f) = Prescriptive Secondary Daylight Controls.
 2. Check Table 140.6-A for correct Factor. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: RAMON EDRIK HILARIO
 Signature Date: 6/5/2017
 Company: The American Engineers
 Address: 10311 GOUTI WESTERN AVE.
 City/State/Zip: TORRANCE, CA 90248
 Phone: 310-576-1553
 E-20282

RESPONSIBLE PERSON'S DECLARATION STATEMENT

1. I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: RAMON HILARIO
 Signature Date: 6/5/2017
 Company: HI-TECH ENGINEERING, INC
 Address: 18311 SOUTH WESTERN AVE.
 City/State/Zip: TORRANCE, CA 90248
 License: E-20282
 Phone: 310-576-1553

A separate page must be filled out for Conditioned and Unconditioned Spaces. This page is only for:
 CONDITIONED spaces UNCONDITIONED spaces

A. SUMMARY TOTALS OF LIGHTING POWER ALLOWANCES

If using Complete Building Method for compliance, use only the total in column (a) as total allowed building watts.
 If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored Method for compliance, use only the total in column (b) as the total allowed building watts.

	(a)	(b)
01 Complete Building Method Allowed Watts. Documented in section B of NRCC-LTI-03-E (below on this page)		
02 Area Category Method Allowed Watts. Documented in section C-1 of NRCC-LTI-03-E (below on this page)		551
03 Tailored Method Allowed Watts. Documented in section A of NRCC-LTI-04-E		0
TOTAL ALLOWED BUILDING WATTS. Enter number into correct cell on NRCC-LTI-01, Page 2, Row 1		551

Check here if building contains both conditioned and unconditioned areas.

B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE

01	02	03	04
TYPE OF BUILDING (From §140.6 Table 140.6-8)	WATTS PER FT ²	COMPLETE BLDG. AREA	ALLOWED WATTS
Total Area:			
Total Watts. Enter Total Watts into section A, row 1 (Above on this page)			

C-1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES

Watts
Total from section C-2: 551
Total from section C-3: 0
Total Watts. Enter Total Watts into section A, row 2 (Above on this page): 551

For Alterations Only - Reduced lighting power option (Total Allowed Watts x 0.85). Enter this value into section A, row 2 if using this option.

A separate page must be filled out for Conditioned and Unconditioned Spaces. This page is only for:
 CONDITIONED spaces UNCONDITIONED spaces

C-2 AREA CATEGORY METHOD GENERAL LIGHTING POWER ALLOWANCE

Do not include portable lighting for offices. Portable lighting for offices shall be documented only in Section G of NRCC-LTI-01-E.
 Separately list lighting for each primary function area as defined in §100.1 of the Standards.

01	02	03	04
AREA CATEGORY (From §140.6 Table 140.6-C)	WATTS PER FT ²	AREA (ft ²)	ALLOWED WATTS
Location in Building			
FOOD PREPARATION	1.20	432	518
RESTROOM	0.60	55	33
TOTALS			487
Enter sum total Area Category allowed watts into section C-1 of NRCC-LTI-03-E (this compliance document)			551

A separate page must be filled out for Conditioned and Unconditioned Spaces. This page is only for:
 CONDITIONED spaces UNCONDITIONED spaces

C-3 AREA CATEGORY METHOD ADDITIONAL LIGHTING WATTAGE ALLOWANCE (from Table 140.6-C Footnotes)

01	02	03	04	05	06	07
Primary Function	Sq Ft or Linear Ft	Additional Watts Allowed	Wattage Allowance (02 x 03)	Description(s) and Quantity of Special Luminaire Types in each Primary Function Area	Total Design Watts	ALLOWED WATTS Smaller of 04 or 06
TOTALS - Enter into TOTAL AREA CATEGORY METHOD ADDITIONAL ALLOWANCES - Section C-1					0	

1. Use linear feet only for additional allowance for white board or chalk board. All other additional Area Category allowances shall use watts per square foot.
 2. Additional watts are available only when allowed according to the footnotes on bottom of Table 140.6-C, which include: Specialized task work; Ornamental lighting; Precision commercial and industrial work; Per linear foot of white board or chalk board; Accent, display and feature lighting; and Videoconferencing studio lighting.
 3. Luminaire classification and wattage shall be determined in accordance with §130.0(c) of the Standards.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: RAMON EDRIK HILARIO
 Signature Date: 6/5/2017
 Company: The American Engineers
 Address: 18311 SOUTH WESTERN AVE.
 City/State/Zip: TORRANCE, CA 90248
 Phone: 310-576-1553
 E-20282

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: RAMON HILARIO
 Signature Date: 6/5/2017
 Company: HI-TECH ENGINEERING, INC
 Address: 18311 SOUTH WESTERN AVE.
 City/State/Zip: TORRANCE, CA 90248
 License: E-20282
 Phone: 310-576-1553

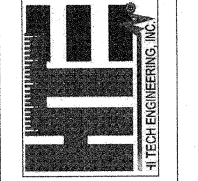
1450 23rd Street
 Santa Monica, CA 90404
 310-453-1134, 310-828-5830 fax
 info@fbharchitects.com
 www.fbharchitects.com

CLIENT
 Tenant Improvement for
 Joe's Grill
 2912 Main Street
 Santa Monica, CA
 90405



17002-09 JOE'S GRILL

Consulting Mechanical
 Electrical and
 Plumbing Engineers
 18311 S. Western Ave.
 Torrance, CA 90248
 Tel. No. 310-576-1553
 info@hitechengineering.us
 www.hitechengineering.us



CHANGES REVISIONS #1

NO.	DATE	DESCRIPTION

NO.	DATE	DESCRIPTION
12/28/16	ARB and SCHEMATIC DESIGN	
1/20/17	Construction Drawings	
1/30/2017	REVISED ARB	
2/20/2017	BIDDING	
6/27/2017	PLAN CHECK	
	PLAN CHECK REVISIONS	
	CONSTRUCTION DOCUMENTS	

INTERIOR LIGHTING TITLE
 24 SHEET 2



09/11/17
17BLD-0344

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 02/16)
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-01-E
Outdoor Lighting (Page 1 of 4)
Project Name: JOE'S GRILL

A. General Information
Project Address: 2912 MAIN STREET SANTA MONICA, CA 90405 Total Illuminated Hardscape Area: 638
Phase of Construction: New Construction Addition Alteration
Outdoor Lighting Zone (LZ) LZ-1 LZ-2 LZ-3 LZ-4
I have confirmed with the AHJ which LZ applies to this site. For default lighting zone designations, see Title 24 Part 6, §10-114

B. Lighting Compliance Documents (check box for each document included)
For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.
 NRCC-LTO-01-E Certificate of Compliance
 NRCC-LTO-02-E Outdoor Lighting Controls Certificate of Compliance
 NRCC-LTO-03-E Outdoor Lighting Power Allowance Certificate of Compliance
 NRCC-LTO-04-E Outdoor Lighting Existing Conditions Certificate of Compliance

C. Summary of Allowed Outdoor Lighting Power
Sum Total ALLOWED Outdoor Lighting Wattage from NRCC-LTO-03-E, page 1: 715
Alterations with NO increase of connected lighting load may instead use the allowed wattage from NRCC-LTO-04, page 2.
Complies ONLY if Installed (Box 02) s Allowed (Box 01)
Sum Total INSTALLED Outdoor Lighting Wattage from NRCC-LTO-01-E, page 3: 221

D. Declaration of Required Installation Certificates
Declare by checking all Installation Certificates that will be submitted. (Retain copies and verify compliance documents are completed and signed.)
 NRCC-LTO-01-E - Must be submitted for all buildings Field Inspector
 NRCC-LTO-03-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance. Field Inspector

E. Declaration of Required Certificates of Acceptance
Declare by checking all the Certificates of Acceptance that will be submitted. (Retain copies and verify compliance documents are completed and signed.)
 NRCC-LTO-02-A - Must be submitted for outdoor lighting controls. Field Inspector

F. Schedule of Luminaires Exempt from the Outdoor Lighting Power Requirements in §140.7
01 Name or Symbol Description of exempt luminaire in accordance with the exemptions
02

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 02/16)
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-01-E
Outdoor Lighting (Page 1 of 4)
Project Name: JOE'S GRILL

G. Schedule of Luminaires Exempt from the Cutoff Requirements in §130.2(b)
01 Name or Symbol Description of exempt luminaire in accordance with the exemptions
02

H. Schedule of Luminaires Exempt from the Outdoor Lighting Control Requirements in §130.2(c)
01 Name or Symbol Description of exempt luminaire in accordance with the exemptions
02

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 02/16)
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-01-E
Outdoor Lighting (Page 3 of 4)
Project Name: JOE'S GRILL

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist

01 Name or Item Tag	02 Luminaire Schedule	03 Watts per Luminaire	04 How wattage was determined		05 Number of Luminaires	06 Total Installed Watts in this area (3 x 5)	07 Location	08 Cutoff	09 Field Inspector	
			CEC Default from NAB	According to §130.0(c)					Pass	Fail
C	EXTERIOR WALL SCENCE	17.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7	119	Dining	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	<input type="checkbox"/>	<input type="checkbox"/>
C	EXTERIOR WALL SCENCE	17.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6	102	Pedestrian Hardscape	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						221	Enter sum total of all pages (Sum Total INSTALLED Outdoor lighting wattage) into NRCC-LTO-01-E, page 1.		221	

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 02/16)
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-01-E
Outdoor Lighting (Page 4 of 4)
Project Name: JOE'S GRILL

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: RAMON EDRIK HILARIO
Company: The American Engineers
Address: 18311 SOUTH WESTERN AVE.
City/State/Zip: TORRANCE, CA 90248
Signature Date: 6/5/2017
City Certification Identification (if applicable): E-20282
Phone: 310-576-1553

RESPONSIBLE PERSON'S DECLARATION STATEMENT
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Responsible Designer Name: RAMON HILARIO
Company: HI-TECH ENGINEERING, INC
Address: 18311 SOUTH WESTERN AVE.
City/State/Zip: TORRANCE, CA 90248
Date Signed: 6/5/2017
License: E-20282
Phone: 310-576-1553

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

fb+h
fonda-bonardi & hohman architects
1450 23rd Street
Santa Monica, CA 90404
310-453-1134, 310-828-5830 fax
info@fbharchitects.com
www.fbharchitects.com

CLIENT
Tonant Improvment for
Joe's Grill
2912 Main Street
Santa Monica, CA
90405



Consulting Mechanical
Electrical and
Plumbing Engineers
18311 S. Western Ave.
Torrance, CA 90248
Tel. No. 310-576-1553
info@hitechengineering.us
www.hitechengineering.us

HI TECH ENGINEERING, INC.

CHANGES/REVISIONS #1

NO.	DATE	DESCRIPTION
1	12/29/16	As-Built Drawings
2	1/23/17	ARB and SCHEMATIC DESIGN
3	1/30/2017	Construction Drawings
4	2/20/2017	REVISED ARB
5	6/27/2017	BIDDING
6		PLAN CHECK
7		PLAN CHECK REVISIONS
8		CONSTRUCTION DOCUMENTS

EXTERIOR LIGHTING
TITLE 24 SHEET 3

November 2016
12/29/16
1/23/17
1/30/2017
2/20/2017
6/27/2017

File: sh4-0 CD.dwg
6/06/17

E5.3

TITLE 24 NOTES

- TITLE 24 FOR AC ENERGY CONSERVATION ALL DUCTWORK INCLUDING INSULATION, SHALL CONFORM TO CALIFORNIA ADMINISTRATIVE CODE, 2016 TITLE 24, AND THE CMC LOW VELOCITY DUCT CONSTRUCTION STANDARDS, LATEST EDITION.
- ALL EXHAUST FANS TO BE FURNISHED WITH BACK-DRAFT DAMPERS.
- ALL AC UNITS SHALL BE PROVIDED WITH A THERMO-STAT FOR AUTOMATIC REGULATION OF TEMPERATURE AND A FOUR HOUR OVERRIDE TIMER.
- THERMOSTAT AND TIMER SHALL BE READILY ACCESSIBLE AND BE MANUALLY ADJUSTABLE.
- ALL THERMOSTATS SHALL BE CAPABLE OF BEING SET TO MAINTAIN SPACE TEMPERATURE SET POINTS FROM 55 DEGREES F. TO 85 DEGREES F. AND SHALL BE CAPABLE OF OPERATING THE SYSTEM HEATING AND COOLING SEQUENCE.
- ALL THERMOSTATS SHALL BE ADJUSTABLE TO PROVIDE A TEMPERATURE RANGE OF UP TO 5 DEGREES F. BETWEEN FULL HEATING AND FULL COOLING AND SHALL HAVE THE CAPABILITY OF TERMINATING ALL HEATING AT A TEMPERATURE NO MORE THAN 70 DEGREES F. AND OF TERMINATING ALL COOLING AT A TEMPERATURE NOT LESS THAN 78 DEGREES F.
- TRANSVERSE JOINTS FOR ALL AIR SUPPLY DUCTS INSTALLED WHERE AIR LEAKAGE WOULD BE NON-BENEFICIAL TO THE OCCUPIED AREA TEMPERATURE REQUIREMENTS SHALL BE SEALED WITH APPROVED MASTIC OR TAPE.
- A MAINTENANCE LABEL SHALL BE AFFIXED TO MECHANICAL EQUIPMENT AND A MAINTENANCE MANUAL SHALL BE PROVIDED FOR THE OWNERS USE.

AIR DISTRIBUTION

	CEILING DIFFUSER - CD-1 TYPE: MTLAIR #5000 FILLER PANEL-YES FACTORY OFF WHITE. OPPOSED BLADE DAMPER <u>NO</u>
	CEILING DIFFUSER - HARD CEILING - CD-1 TYPE: MTLAIR #5000 FACTORY OFF WHITE. OPPOSED BLADE DAMPER <u>YES</u>
	RETURN & EXHAUST AIR GRILLES/REGISTERS TYPE SQUARE GRID 24X12, 24X24, 24X48 FACTORY OFF WHITE. OPPOSED BLADE DAMPER NO LAY-IN TEE BAR. FOR HARD CEILINGS - USE FRAME & OPPOSED BLADE DAMPER.
	SIDE WALL REGISTER METAL-AIRE MULTIDIRECTIONAL ADJUSTABLE TOWERS WITH OGD

NOTES TO CONTRACTOR

- CONTRACTORS TO PREPARE SHOP DRAWINGS AFTER CONDUCTING SITE SURVEY. THE SHOP DRAWINGS MUST PROVIDE THE NECESSARY INSTALLATIONS, CUSTOMIZED ACCORDING TO ACTUAL SITE CONDITIONS. PROVIDE A COPY TO THE CLIENT, ARCHITECT & ENGINEERS A WEEK PRIOR TO MOBILIZATION.
- CONTRACTOR TO PREPARE TWO COPIES OF RED LINE AS-BUILT DRAWINGS. USE THE SHOP DRAWINGS AS THE BASE PLAN. RED PENCIL (NOT PEN) TO UPDATE THE SAID AS-BUILT EVERYDAY. THE FIRST COPY IS FOR TECHNICIAN REFERENCE WHILE WORKING. THE SECOND COPY SHOULD BE KEPT CLEAN, NEAT, & LEGIBLE. THIS SHALL BE USE FOR INSPECTION, MEETING, RFI PREPARATION, AND OTHER APPLICATIONS WHEREON A CLEAN, NEAT, & LEGIBLE COPY IS NECESSARY. PRIOR TO RELEASE OF FINAL PAYMENT, THE SECOND COPY MUST BE CERTIFIED BY THE CONTRACTOR'S LICENSEE AS COMPLETE & CORRECT. SCAN AND PROVIDE ELECTRONIC COPY TO THE CLIENT, ARCHITECT, & ENGINEERS. THE HARD COPY MUST BE KEPT BY THE CONTRACTOR DURING WARRANTY PERIOD AND MUST BE SUBMITTED TO STORE MANAGER ON THE LAST DAY OF WARRANTY.
- THE GENERAL CONTRACTOR MUST DISCUSS & SUPPORT THEIR SUBCONTRACTOR. IF THE SUBCONTRACTOR NEEDS INFORMATION THAT NEEDS ENGINEER'S SUPPORT, THE GENERAL CONTRACTOR MUST, USING ITS OFFICIAL FORM, SEND REQUEST FOR INFORMATION (RFI) TO THE ARCHITECT OF RECORDS. COPY FURNISH THE ENGINEERS. THE RFI MUST BE CONCISE & SUPPORTED W/ SKETCH, DRAWINGS, CUT SHEET AND/OR OTHER MATERIALS THAT WILL HELP THE ENGINEERS RESPOND PRECISELY AND QUICKLY.
- ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE LANDLORD'S "ENGINEERING DESIGN CRITERIA".
- ALL CONTRACTORS SHALL OBTAIN A COPY FROM THE LANDLORD'S TENANT COORDINATOR OR OPERATIONS MANAGER AND BECOME FAMILIAR WITH THE REQUIREMENTS CONTAINED WITHIN PRIOR TO BIDDING THE JOB.
- WHERE LANDLORD'S REQUIREMENTS CONFLICT WITH CODES OR ORDINANCES, THE STRICTEST INTERPRETATION SHALL APPLY.

GENERAL NOTES

- POWER WIRING, CONDUIT, SWITCHES AND TIME CLOCKS SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- LOW VOLTAGE WIRE AND CONDUIT SHALL BE FURNISHED & INSTALLED BY ELECTRICAL CONTRACTOR. FINAL CONNECTIONS BY AIR CONDITIONING CONTRACTOR.
- CONDENSATE DRAIN PIPING (COPPER OR GALV.) TO AN APPROVED RECEPTOR BY PLUMBING CONTRACTOR. CONDENSATE DRAIN TO BE TRAPPED. SEE DETAIL.
- GENERAL CONTRACTOR SHALL FURNISH AND/OR INSTALL CUTTING, PATCHING, FRAMING, ROOF-ING, PAINTING, EQUIPMENT SCREENING, CURBS, OR PLATFORMS WITH THE REQUIREMENTS OF THE AIR CONDITIONING SYSTEM.
- EQUIPMENT, INSTALLATION AND OPERATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES.
- ALL A/C SYSTEMS SHALL BE TESTED AND BALANCED IN ACCORDANCE WITH AABC GUIDELINES. THE T & B CONTRACTOR SHALL NOTIFY MECH. CONTRACTOR OF ANY DEFICIENCY IN THE SYSTEMS AND HAVE THEM CORRECTED PRIOR TO FINAL APPROVAL & START UP OF A/C SYSTEMS. THE PROPER AMOUNT OF OSA SHALL COMPLY WITH T-24 CALCULATIONS.
- ALL FIELD INSTALLED REFRIGERATION PIPING WITH R-410A REFRIGERANT SHALL BE:
 - INSTALLED BY CERTIFIED INSTALLER
 - LEAK TESTED @ 2650PSI
 - RETESTED FOR LEAKS AND REPORT PROVIDED TO MECHANICAL INSPECTOR
- TYPE II HOOD EXHAUST DUCT SHALL BE G.I. OR BLACK STEEL 18 GAGE - ALL WELDED CONSTRUCTION

TYPE I KITCHEN HOOD

CAPTIVE AIRE ND-2 4824. PSP SECTION CONSTRUCTION. EXHAUST HOOD, UL LISTED FOR MEDIUMTEMP APPLICATIONS. COMPLETE WITH EXHAUST AND SUPPLY CONNECTIONS, INCANDESCENT LIGHTS, CLEANABLE BAFFLE GREASE FILTERS, HANGERS AND BRACKETS AND DRY CHEMICAL FIRE EXTINGUISHING SYSTEM. SIZES AS SHOWN BELOW. PROVIDE FIRE DAMPERS FOR SUPPLY CONNECTION.

A	B	EXHAUST DUCT	COOKING EQUIPMENT
14' - 4"	4'	KITCHEN HOOD DUCT, TO 28X12 TO 24"Ø @ 2100FPM	FRYERS, GRIDDLE, OVEN, ETC.

HOOD FP CONTROLS SHALL SHUT OFF GAS SUPPLY VALVE AND KITCHEN VENTILATION SYSTEM DURING FIRE EMERGENCY. (TWO (2) NC CONTACTS AVAILABLE FOR THIS). SEE PLUMBING FLOOR PLAN FOR LOCATION OF VALVE

VENTILATION AND PURGE CYCLE

AS REQUIRED BY CEC ALL VENTILATION SHALL MEET CEC GUIDELINES. A/C UNITS SHALL START 1 HR. PRIOR TO OCCUPANCY AND CYCLE TO PROVIDE PURGE CYCLE.

DUCT CONSTRUCTION STANDARDS

ALL WORK SHALL CONFORM TO THE FOLLOWING 2013 CMC SECTIONS

SECTION	DESCRIPTION
602	DUCT MATERIAL
603	INSTALLATION OF DUCTS
604	DUCT INSULATION
605	SMOKE, FIRE AND CEILING DAMPERS
606	AUTOMATIC SHUT OFFS

FIRERATED DUCT WRAP

IF APPROVED BY LOCAL BUILDING AND SAFETY DEPARTMENT, CONTRACTOR HAS THE OPTION TO USE U.L. LISTED 3M-20A (FIRE TEMP) 2 HOUR RATED DUCT WRAP FOR GREASE DUCTS, IF INSTALLED PER MANUFACTURER'S INSTRUCTION

MECHANICAL NOTES

- SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL CEILING DIFFUSERS, LINEAR IN THE WORK OF OTHER TRADES DUE TO DEVIATIONS FROM THE CONTRACT DOCUMENTS. ANY DIFFUSERS RETURN GRILLES AND EQUIPMENT ACCESS PANELS. COORDINATE ANY DISCREPANCIES BETWEEN DRAWINGS BEFORE PROCEEDING IN THE FIELD.
- CONTRACTOR SHALL SUBMIT ONE (1) SET OF VELLUM AS-BUILTS AND TWO (2) SETS OF BLUE LINE AS-BUILTS TO THE BUILDING OWNER AND ONE SET OF VELLUMS AND ELECTRONIC FILES TO THE ENGINEER.
- ALL EQUIPMENT & MATERIALS SHALL MATCH BASE BUILDING SPECIFICATIONS AND INSTALLATIONS.
- DUCT DIMENSIONS SHOWN ARE NET INSIDE DIMENSIONS.
- INSTALL CFSD & FIRE DAMPER ON ALL DUCTS PENETRATING FIRE RATED ENCLOSURES, PARTITIONS, AND TUNNEL CEILINGS. PROVIDE ACCESS PANELS FOR ALL CFSD & FD ABOVE INACCESSIBLE CEILINGS. PROVIDE SMOKE DETECTOR DEVICE IN DUCTWORK CONNECTED TO CFSD. INSTALL DUCT S.D. PER MANUFACTURER'S APPROVED LISTING & INSTALLATION INSTRUCTIONS.
- ALL FIRE OR COMBINATION FIRE SMOKE DAMPERS ARE NEW UNLESS OTHERWISE NOTED. EXISTING FIRE OR COMBINATION FIRE SMOKE DAMPERS THAT ARE NOT TO BE UTILIZED SHALL BE REMOVED.
- ALL DUCTWORK SHALL BE GALVANIZED STEEL. ALL DUCTWORK AND LINING SHALL BE CONSTRUCTED AND INSTALLED PER SMACNA "HVAC METAL DUCT CONSTRUCTION STANDARDS" LATEST EDITION. ALL 45-DEGREE LEADING EDGES, CONICAL TAP-IN FITTINGS, EXTRACTORS, TURNING VANES (WHERE APPROPRIATE), PROPERLY DESIGNED PLENUMS, AND OTHER SHEET METAL FITTING AND AIR FLOW DEVICES SHALL BE INSTALLED PER THESE SMACNA GUIDELINES.
- WHERE CONNECTING BRANCH DUCTWORK TO CEILING DIFFUSERS AND CEILING REGISTERS, EXISTING FIRE OR BRANCH DUCT SHALL BE SAME SIZE AS NECK OF CEILING DIFFUSER OR CEILING REGISTER. PROVIDE FLEXIBLE DUCT MAXIMUM OF 5' TO THE DIFFUSERS.
- EXISTING DUCTWORK ACTUAL LENGTH AND SIZE MAY BE DIFFERENT THAN WHAT IS INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROVIDE ALL OFFSETS AND TRANSITIONS, AS REQUIRE FOR A COMPLETE INSTALLATION.
- PROVIDE A VOLUME DAMPER IN EACH BRANCH DUCT TO OUTLET WHETHER SHOWN ON DRAWING OR NOT. DAMPERS SHALL BE AS FAR AWAY FROM DIFFUSER AS POSSIBLE, PREFERABLY AT THE BRANCH TAKE-OFF. CONTRACTOR SHALL TAG VOLUME DAMPERS WITH RED OR YELLOW RIBBONS.
- A MINIMUM OF 30" WIDE BY 30" HIGH CLEAR WORKING SPACE SHALL BE PROVIDED IN FRONT OF THE ACCESS PANELS TO ALL A/C UNITS COMPRESSOR, BLOWER ASSEMBLY, & THE AIR FILTER.
- A MINIMUM OF 36" CLEAR WORKING SPACE, NOT LESS THAN 30" WIDE, SHALL BE MAINTAINED IN FRONT OF ALL SWITCHES, OVERCURRENT DEVICES AND ELECTRIC CONTROL COMPONENTS.
- INTERLOCK ALL MOVING AIR EQUIPMENT SUCH AS FANS WITH THE FIRE LIFE SAFETY SYSTEM ALL A/C UNITS & EXHAUST FANS SHALL SHUT OFF WITH THE AIR HANDLING UNIT UPON DETECTION OF SMOKE BY THE FLS SYSTEM.
- CONTRACTOR SHALL PROVIDE POWER, ELECTRICAL WIRING, CONDUITS, FOR ALL NEW, EXISTING AND RELOCATED AC UNITS AND SMOKE DETECTORS INTERLOCKS.
- ALL PIPING AND ASSOCIATED FITTINGS AND VALVES SHALL BE OF SIMILAR MATERIAL PER CODE, UNLESS APPROVED OTHERWISE. PROVIDE DIELECTRIC COUPLING BETWEEN JOINTS OF DISSIMILAR MATERIALS.
- ALL PIPING SHALL BE LABEL EVERY 10 FT. MFR SHALL BE MSI OR APPROVED EQUAL.
- ALL PIPING & DUCT PENETRATION THROUGH RATED CONSTRUCTION SHALL BE PROPER FIRE STOP WITH UL-LIST FIRE STOPPING PRODUCTS. CONSULT WITH UL FIRE RESISTANCE DIRECTORY FOR ADDITIONAL REQUIREMENTS.
- ALL PIPING & DUCTS PENETRATION THROUGH NON-RATED CONSTRUCTION SHALL BE PROPERLY AND GENEROUSLY CALKED WITH SOUND RESISTANT MATERIAL SUCH AS SILICONE. USE ACOUSTICAL SEALANT AROUND DUCTS INSTALLED INTO ACOUSTICAL PARTITIONS.
- CONTRACTOR TO PROVIDE TRANSFER DUCTS, SIZED PER OUR DETAIL, FOR ALL ROOMS ENCLOSED BY FULL HEIGHT WALLS ON ALL SIDES.
- ALL EXISTING INSULATION ON THE MAIN DUCTWORK THAT IS LOOSE OR DAMAGED SHALL BE REPLACED BY THE CONTRACTOR.
- CONTRACTOR SHALL PATCH AND REPAIR ANY AIR LEAKAGES AND HOLES ON EXISTING DUCTWORK.
- CONTRACTOR SHALL LABEL ALL THERMOSTAT BY ITS CORRESPONDING TERMINAL AIR UNIT OR AC UNIT.
- ALL COMBINATION FIRE/SMOKE DAMPERS SHALL BE CALIFORNIA FIRE MARSHALL LISTING. THE FOLLOWING LISTINGS ARE BASED ON POTTORFF. EQUIVALENT MANUFACTURER'S PRODUCT WITH LISTING SHALL BE SUBMITTED FOR APPROVAL.

24.1.	TYPE	MODEL	STATE FIRE MARSHALL LISTING
24.2.	COMB.	FSD-40	FIRE 03225-0368:008
24.3.	FIRE/SMOKE	SERIES	SMOKE 03230-0388:105
- CONTRACTOR TO FURNISH FULL SIZE SHOP DRAWINGS SHOWING ALL DUCT ROUTING, EQUIPMENT LOCATIONS, DIFFUSER, & THERMOSTAT LOCATIONS, AND ANY OTHER PERTINENT HVAC ITEMS. FLANGES SHALL BE SUBMITTED AS SHOP DRAWINGS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PAYMENT OF ALL CHARGES RESULTING FROM ANY ADDITIONS OR CHANGES
- PROVIDE DUCT FLEX CONNECTORS ON ALL SUPPLY AND RETURN DUCT CONNECTIONS TO A/C UNITS OR EXHAUST FANS.
- AREAS ABOVE NONE DUCTED RETURN AIR GRILLED SHALL BE PAINTED FLAT BLACK TO MASK "SEE THROUGH" EFFECT.
- ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED AND INSTALLED IN ACCORDANCE WITH UMC CHAPTER 6.
- THIS PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE (TITLE 24), WHICH HAS BEEN ADOPTED BY LOCAL CODES. MECHANICAL CODE, CALIF. PLUMBING CODE AND THE CALIF. ELECTRICAL CODE.
- THE FIRE RATED CORRIDORS ARE NOT TO BE USED TO CONVEY AIR TO OR FROM ROOMS. UMC SECTION 602.1
- THERE ARE NO ENVELOPE ALTERATIONS TO BE DONE ON THE BUILDING.
- AIR & WATER BALANCE TO BE PERFORMED BY AN INDEPENDENT AABC CONTRACTOR. AIR BALANCE TO INCLUDE ALL A/C UNITS, VAVS, BATHROOM EXHAUST FANS AND SUPPLY GRILLES AS REQUIRED. UTILIZE APPROVED BUILDING AIR BALANCE COMPANY. ALL AIR AND WATER BALANCE TO BE IN ACCORDANCE WITH AABC STANDARDS.
- ALL PIPING AND ASSOCIATED FITTINGS AND VALVES SHALL BE OF SIMILAR MATERIAL PER CODE, UNLESS APPROVED OTHERWISE. PROVIDE DIELECTRIC COUPLING BETWEEN JOINTS OF DISSIMILAR MATERIALS.
- RUN ALL DUCTS AS TIGHT AS POSSIBLE TO STEEL BEAMS. ALL PIPINGS OTHER THAN CONDENSATE SHALL BE ROUTED ABOVE THE DUCTWORK UNLESS APPROVED OTHERWISE.
- ROOM THERMOSTATS SHALL BE PER BUILDING STANDARDS AND COMPATIBLE WITH THERMINAL AIR UNIT OPERATORS. ADJUSTABLE RANGE SHALL BE 10°F BETWEEN FULL HEATING AND FULL COOLING, OPERATING IN SEQUENCE, SET AT 70°F HEATING AND 74°F COOLING. COORDINATE FINAL LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
- CONTRACTOR SHALL PROVIDE WRITTEN WARRANTY TO REPLACE ALL FAULTY MATERIALS AND/OR LABOR AT NO COST TO OWNER FOR A PERIOD OF ONE YEAR FROM DATE OF OWNER ACCEPTANCE.
- UPON COMPLETION OF WORK, CONTRACTOR SHALL CLEAN AND REMOVE ALL DEBRIS ASSOCIATED WITH HIS/HER WORK AND DISPOSE OF IT. AREA SHALL BE LEFT IN A CONDITION ACCEPTABLE TO OWNER.
- PROVIDE ACCESS PANELS FOR ALL NEW OR EXISTING EQUIPMENT AND VALVES LOCATED ABOVE HARD LID CEILING.
- CONTRACTOR SHALL SEAL ALL UNUSED DUCT OPENINGS AND REPAIR ALL LEAKING DUCTS AS PART OF THIS WORK.
- CEILING SPACES USED AS RETURN AIR PLENUMS SHALL FULLY COMPLY WITH ALL THE PROVISIONS OF SECTIONS 601.1-601.2.
- SEAL ALL DUCTS AND JOINTS WITH HIGH VELOCITY, WATER BASED, UL-FIRE RATED DUCT SEALER.
- CONTRACTOR SHALL SEAL ANY AIR LEAKAGES OR HOLES ON EXISTING DUCTWORKS. REPLACE ANY DAMAGE OR MISSING INSULATION.
- RUN 1" TYPE L COPPER CONDENSATE DRAIN LINES FROM EACH A/C UNIT TO NEAREST CODE APPROVED RECEPTOR.
- CONDENSATE DRAIN PIPING INSTALLED WITHIN A RETURN PLENUM SHALL BE NON-COMBUSTIBLE MATERIAL.
- ALL RETURN AIR IS VIA RETURN GRILLES AND CEILING PLENUM EXCEPT TOILET ROOMS, ELECTRICAL ROOMS AND TUNNEL TYPE CORRIDORS. ALL MATERIAL EXPOSED WITHIN THE PLENUM SHALL COMPLY WITH UMC SECTION 604.2. MATERIALS SHALL HAVE A MOLD, HUMIDITY AND EROSION-RESISTANT FACE THAT MEETS THE REQUIREMENTS OF UL 181.
- COMBUSTIBLE WITHIN THE PLENUM SPACE MUST COMPLY WITH UMC SECTION 601.3. FLAME-SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NOT MORE THAN 50.

MECHANICAL SHEET INDEX

SHEET #	SHEET TITLE	REMARKS/ISSUE
M0.1	GEN NOTES SYMBOLS LEGENDS ABBREV & SHEET INDEX	PLAN CHECK
M0.2	MECHANICAL SCHEDULE AND NOTES	PLAN CHECK
M2.1	MECHANICAL FLOOR & ROOF PLAN	PLAN CHECK
M4.1	MECHANICAL DETAILS	PLAN CHECK
M4.2	MECHANICAL HOOD DETAILS SHEET 1	PLAN CHECK
M4.3	MECHANICAL HOOD DETAILS SHEET 2	PLAN CHECK
M4.4	MECHANICAL HOOD DETAILS SHEET 3	PLAN CHECK
M5.1	MECHANICAL TITLE 24	PLAN CHECK

DRAWN BY: RP
DESIGN BY: KK
CHECKED BY: EH

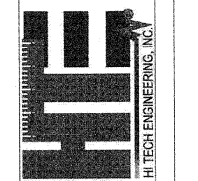


09/11/17
04/18/2017



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Consulting Mechanical
Electrical and
Plumbing Engineers
18311 S. Western Ave.
Torrance, CA 90508
Tel. No. 310-576-1558
Info. No. 310-576-1558
www.hbaengineering.us



CHANGES/REVISIONS #1

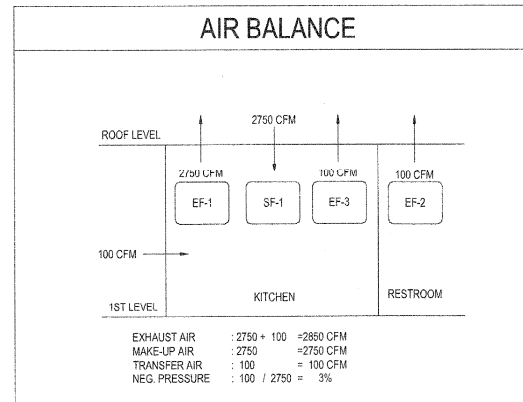
NO.	DATE	DESCRIPTION

As-Built Drawings

DATE	DESCRIPTION
November 2016	ARB and SCHEMATIC DESIGN
12/29/16	Construction Drawings
1/23/17	REVISED ARB
1/30/2017	BIDDING
2/20/2017	PLAN CHECK
6/27/2017	PLAN CHECK REVISIONS

CONSTRUCTION DOCUMENTS

GEN NOTES SYMBOLS
LEGENDS ABBREV &
SHEET INDEX



EXHAUST FAN SCHEDULE

MARK	MAKE	MODEL	FAN TYPE	MOUNTING	TOTAL CFM	ESP (IN)	MOTOR DATA					OPER WT. LBS.	SERVICE	REMARKS
							HP	W	FLA	V	Ø			
EF-1	CAPTIVE AIRE	RM	BELT DRIVE	ROOF	2750	0.750	1.0	-	4.5	230V	1	385LBS	KITCHEN	1,2,3,4,5,6,7
EF-2	GREENHECK	SP-B110	CLG MTD	CEILING	100	0.250	-	80.2W	1.14 MCA	115V	1	10LBS	TOILET	2
EF-3	GREENHECK	SP-B110	CLG MTD	CEILING	100	0.250	-	80.2W	1.14 MCA	115V	1	10LBS	DISHWASH	2

1. DISCONNECT SWITCHES (BY ELECTRICAL CONTRACTOR).
 2. PROVIDE WITH BACKDRAFT DAMPER.
 3. PROVIDE WITH SPEED CONTROL AND INTERLOCK WITH THE HOOD MUA.
 4. UL LISTED FOR RESTAURANT/KITCHEN EXHAUST.
 5. WITH VENTED ROOF CURB AND GREASE TERMINATOR.
 6. BY KITCHEN CONSULTANT.
 7. PROVIDE MOTION CONTROL SHUT-OFF TO SET A 1 MINUTE AFTER THE ROOM IS VACATED.
 8. SPECIFIED MECHANICAL ITEMS CAN BE REPLACED WITH ITEMS OF APPROVED EQUAL.

MAKE-UP AIR UNIT SCHEDULE

MARK	MAKE	MODEL	FAN TYPE	MOUNTING	TOTAL CFM	ESP (IN)	MOTOR DATA				WT. LBS.	SERVICE	REMARKS
							HP	FLA	V	PH			
SF-1	CAPTIVE AIRE	A2-G12	CENT	ROOF	2750	0.750	1.5	6.8	230V	1	609LBS	KITCHEN	

DIFFUSER SCHEDULE

MARK	CFM RANGE	TYPE	MAX. SP (IN.)	FRAME SIZE (IN.)	NECK SIZE (IN.)	MAX. N.C.	REMARKS
CD-1	0 - 120	SQUARE	0.1	12X12	6X6	25	TITUS MODEL TSW, PERFORATED SUPPLY, MODULAR CORE
CD-2	121 - 220	SQUARE	0.1	12X12	8X8	25	TITUS MODEL TSW, PERFORATED SUPPLY, MODULAR CORE
CD-3	221 - 350	SQUARE	0.1	12X12	10X10	25	TITUS MODEL TSW, PERFORATED SUPPLY, MODULAR CORE
CD-4	351 - 500	SQUARE	0.1	12X12	12X12	25	TITUS MODEL TSW, PERFORATED SUPPLY, MODULAR CORE
EG-1	0-300	SQUARE	0.1	12X12	8X8	30	TITUS MODEL 355RL, EXHAUST GRILLE
EG-2	0-1000	SQUARE	0.1	24X24	22X22	30	TITUS MODEL 350RLF, EXHAUST GRILLE

NOTES:
 FINAL DIFFUSER LOOK, LOCATION, AND COLOR SCHEME SHALL BE COORDINATED AND APPROVED WITH / BY ARCHITECT.
 VOLUME DAMPERS ABOVE A HARD LID CEILING. VERIFY PULLEY.

PROVIDE OBD FOR ACCESS TO COORDINATE DIFFUSER BORDER TYPE WITH REFLECTED CEILING PLAN.

AIR BALANCE TABLE

SYMBOL	EXHAUST CFM	MAKE-UP AIR
EF 1	2750	-
EF 3	100	-
SF 1	-	2750
TOTAL	2850	2750

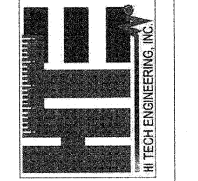
fb + h
fonda-bonardi & hohman architects

1450 23rd Street
Santa Monica, CA 90404
310-453-1134, 310-828-5830 fax
info@fbharchitects.com
www.fbharchitects.com



17002-09 JOE'S GRILL

Consulting Mechanical and Electrical Engineers
Plumbing Engineers
18311 S. Western Ave.
Torrance, CA 90506
Tel: No. 310-316-1053
Fax: No. 310-316-1053
www.hitechengineering.com



CHANGES/REVISIONS #1

NO.	DATE	DESCRIPTION

November 2016

DATE	DESCRIPTION
12/29/16	As-Built Drawings
1/23/17	ARB and SCHEMATIC DESIGN
1/30/2017	Construction Drawings
1/30/2017	REVISED ARB
2/20/2017	BIDDING
8/27/2017	PLAN CHECK
	PLAN CHECK REVISIONS
	CONSTRUCTION DOCUMENTS

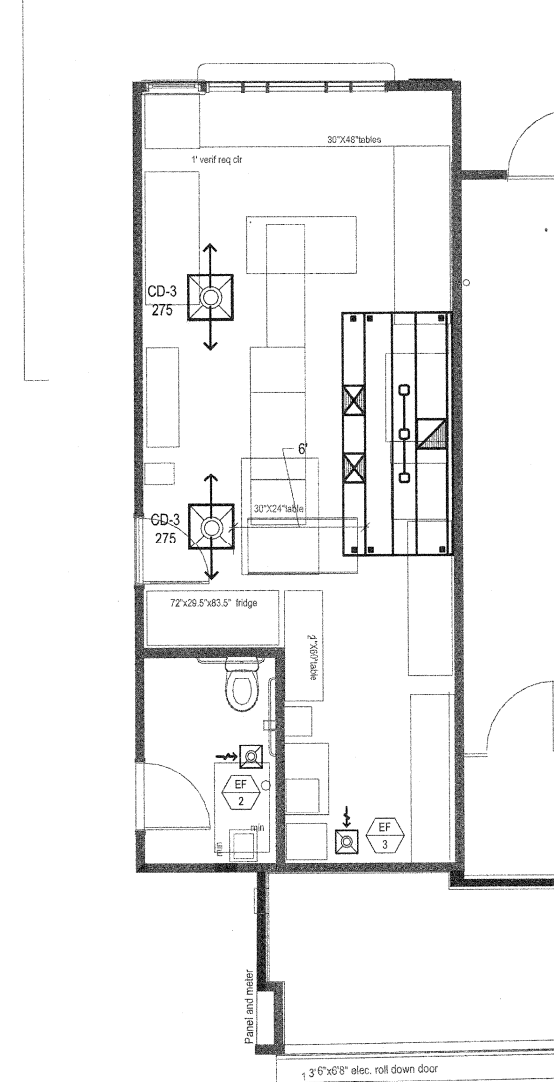
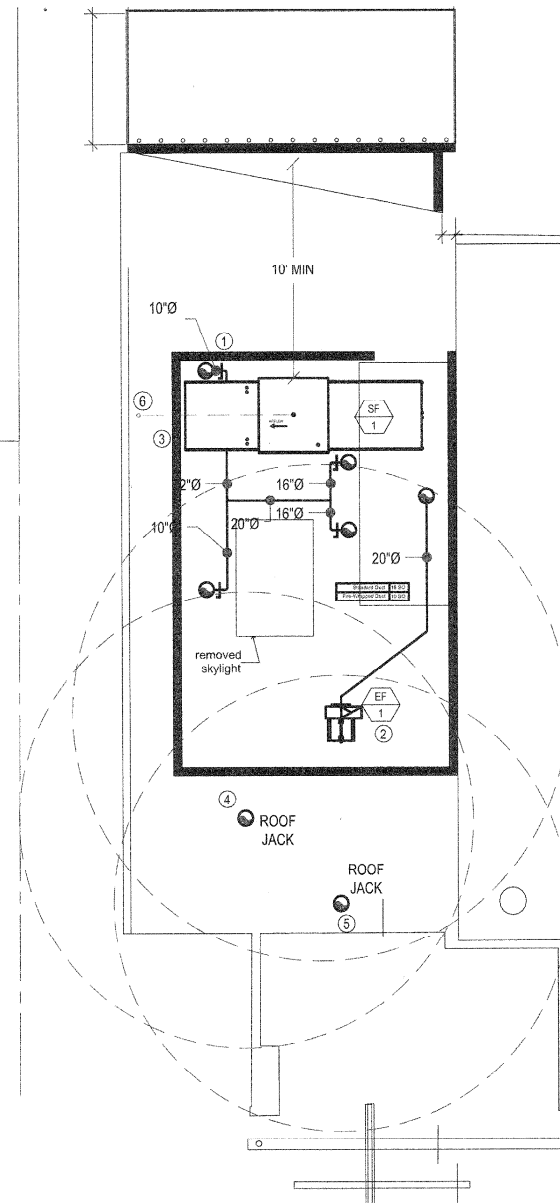
MECHANICAL SCHEDULE AND NOTES



09/11/17
17BLD-0344

REFERENCE NOTE

- ① PROVIDE R-8 INSULATION FOR EXTERIOR DUCT.
- ② PROVIDE NEW EF-1 EXHAUST FAN. INSTALL 10FT. AWAY FROM ALL OPERABLE WINDOWS OR DOORS AND ALL AIR INTAKE. COORDINATE WITH ARCHITECT TO VERIFY LOCATION.
- ③ PROVIDE NEW SF-1 MAKE-UP AIR WITH SWAMP COOLER WITH SIDE DISCHARGE. COORDINATE WITH ARCHITECT TO VERIFY LOCATION.
- ④ PROVIDE NEW EF-2 EXHAUST FAN FOR RESTROOM TO INSTALL AND TERMINATE WITH ROOF JACK OR EQUAL. FIELD TO VERIFY LOCATION.
- ⑤ PROVIDE NEW SF-3 EXHAUST FAN FOR KITCHEN DISHWASHING AREA TO INSTALL AND TERMINATE UP THRU THE ROOF WITH ROOF JACK OR EQUAL. FIELD TO VERIFY LOCATION.
- ⑥ 1 1/2" DRAIN PIPE TO TERMINATE TO FLOOR SINK. REFER TO PLUMBING PLANS TO VERIFY LOCATION.



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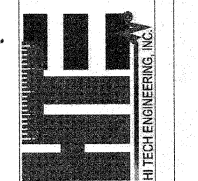
1450 23rd Street
Santa Monica, CA 90404
310-453-1134, 310-828-8800 fax
info@fbharchitects.com
www.fbharchitects.com

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Tenant Improvement for
Joe's Grill
2912 Main Street
Santa Monica, CA
90405



17002-09 JOE'S GRILL

Consulting Mechanical
Electrical and
Plumbing Engineers
18311 S. Western Ave.
Torrance, CA 90506
Tel: 310-579-8585
info@hitecengineering.us
www.hitecengineering.us



DATE	DESCRIPTION
November 2016	As-Built Drawings
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	PLAN CHECK REVISIONS
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MECHANICAL FLOOR & ROOF PLAN

Pipernsky4.0 CD.pln
5/30/17

M2.1

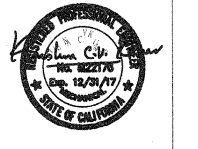


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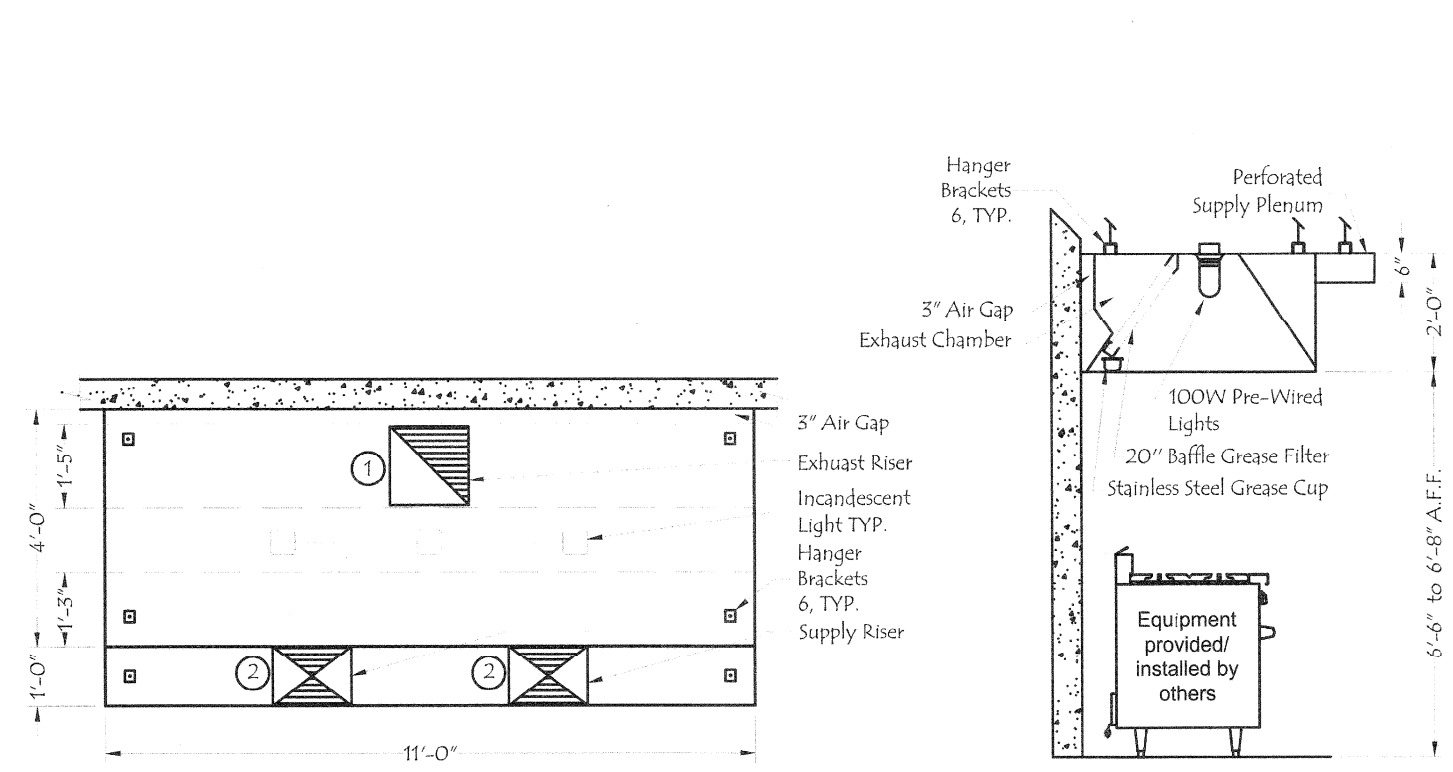
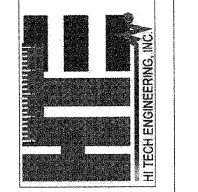
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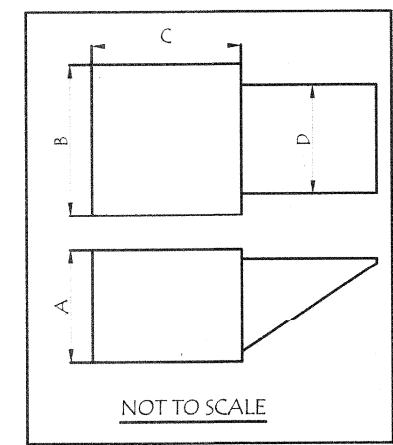
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Consulting Mechanical
and
Electrical Engineers
15311 S. Western Ave.
Torrance, CA 90504
Tel: 310-979-8555
info@hitechengineering.us
www.hitechengineering.us

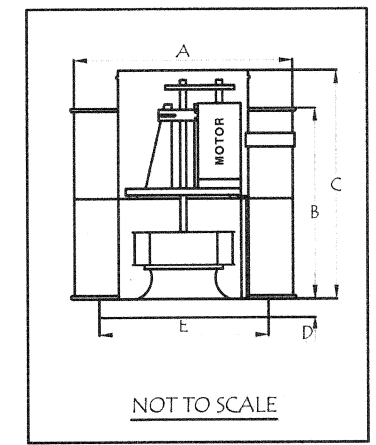


PLAN VIEW
SCALE: 3/8"=1'-0"

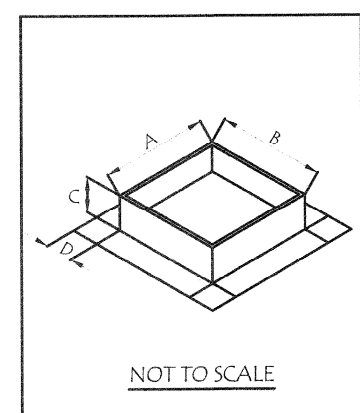
SIDE VIEW
SCALE: 3/8"=1'-0"



FAN MODEL	A	B	C	D	WT. LBS.
HMSF5	24"	22"	22"	15 3/8"	99 LBS.



FAN MODEL	A	B	C	D	E	WT. LBS.
HMEX36-B	38"	22 1/2"	25 1/4"	2"	28" SQ	165 LBS.



FAN MODEL	A	B	C	D
HMEX36-B	27"	27"	18"	4"
HMSF7	31"	31"	10"	4"

NOTE: IT IS THE RESPONSIBILITY OF THE ARCHITECT/OWNER TO ENSURE THAT THE HOOD CLEARANCE FROM LIMITED-COMBUSTIBLE AND COMBUSTIBLE MATERIALS IS IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS.

ALL EQUIPMENT IS UL LISTED COMPONENTS
HOODMART HOODS ARE BUILT IN COMPLIANCE WITH NFPA #96 & UL710 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:
NSF INTERNATIONAL
ETL

HOOD NO.	MODEL	LENGTH	MAX. COOKING TEMP.	① EXHAUST PLENUM					② SUPPLY PLENUM					HOOD CONSTRUCTION		
				TOTAL EXH. CFM	RISER(S)				TOTAL SUP. CFM	RISER(S)						
				WIDTH	LENG.	QTY.	CFM	S.P.	WIDTH	LENG.	QTY.	CFM	S.P.			
1	HM-HBOX 11X48	132" NOM 152" OD	700 Deg.	2750	16"	16"	1	2750	.750"	2200	12"	16"	2	1100	.250"	STAINLESS/ALUMINIZED

HOOD NO.	FILTER(S)			LIGHT(S)			UTILITY CABINET(S)				HOOD WEIGHT	
	TYPE	QTY.	HEIGHT	LENGTH	TYPE	QTY.	WIRE GUARD	FIRE SYSTEM	ELECTRICAL MODEL #	SWITCHES		
								TYPE	SIZE	QUANTITY	LOCATION	
1	S.S. BAFFLE WITH HANDLES	2	20"	16"	INCANDESCENT LIGHT	3	NO	PYROCHEM	PCL		HOOD	450 LBS.

FAN UNIT NO.	FAN UNIT MODEL #	EXHAUST FAN									SUPPLY FAN									
		MODEL	TAG	CFM	S.P.	RPM	H.P.	Ø	VOLT	FLA	BLOWER	HOUSING	TAG	CFM	S.P.	RPM	H.P.	Ø	VOLT	FLA
1	HMEX36-B EF-1	HMEX36-B	EF-1	2750	.750"	1346	1	1	115/230	13/6.5										
2	HMSF7 SF-1										HMSF7	SF1	2200	.250"	517	1/2	1	115	7.2	



REV.	DATE	DRAWN BY	APPROVED BY	REMARKS

HOODMART.
YOUR ONE STOP HOOD SHOP
172 REASER COURT
ELYRIA, OHIO 44035
TOLL FREE: 1-800-765-5054
FAX: 1-800-738-1234

EQUIPMENT SCHEDULE
HBOX PSP WITH FRESH AIR
CONTRACT NO. - ITEM NO. -
JOB: -
LOC: -
CUST: -
CUST#: -

DWG# -11381

FOR REFERENCE ONLY

CHANGES/REVISIONS #1

NO.	DATE	DESCRIPTION

MECHANICAL HOOD
DETAILS SHEET 1



09/11/17
17BLD-0344

EXHAUST FAN INFORMATION - Job#3060816

Table with columns: FAN UNIT NO., TAG, FAN UNIT MODEL #, CFM, ESP., RPM, H.P., B.H.P., Ø, VOLT, FLA, DISCHARGE VELOCITY, WEIGHT (LBS.), SONES

MUA FAN INFORMATION - Job#3060816

Table with columns: FAN UNIT NO., TAG, FAN UNIT MODEL #, BLOWER, HOUSING, DESIGN CFM, ESP., RPM, H.P., B.H.P., Ø, VOLT, FLA, EVAP COOLER ENTERING DB TEMP, EVAP COOLER ENTERING WB TEMP, EVAP COOLER LEAVING DB TEMP, EVAP COOLER LEAVING WB TEMP, WEIGHT (LBS.), SONES

FAN OPTIONS

Table with columns: FAN UNIT NO., TAG, OPTION (Qty - Descr.)

FAN ACCESSORIES

Table with columns: FAN UNIT NO., TAG, GREASE CUP, GRAVITY DAMPER, WALL MOUNT, SIDE DISCHARGE, GRAVITY DAMPER, MOTORIZED DAMPER, WALL MOUNT

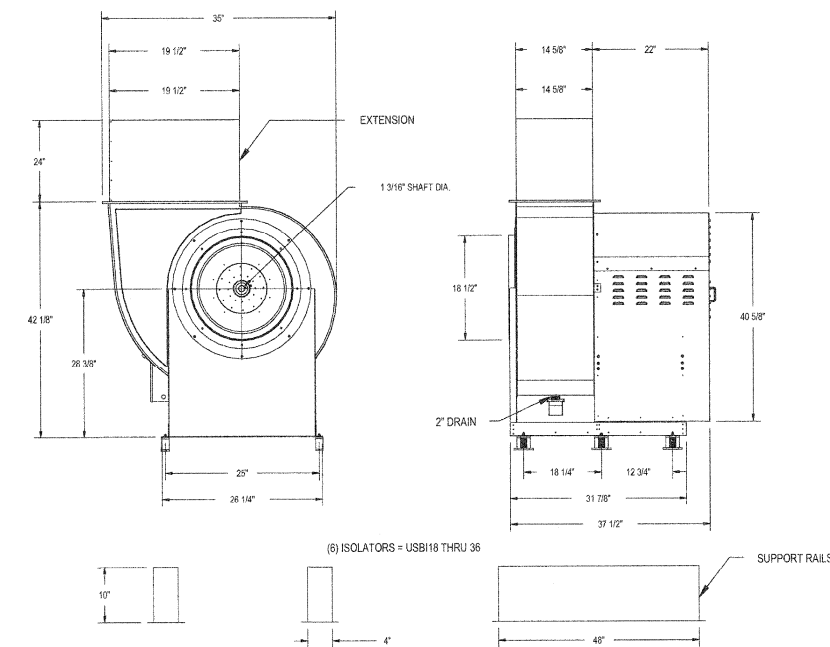
CURB ASSEMBLIES

Table with columns: NO., ON FAN, WEIGHT, ITEM, SIZE

FAN SOUND INFORMATION

Table with columns: FAN UNIT NO., MOTOR, RPM, LWA, SONES, DBA, DISTANCE FT, OCTAVE 1, OCTAVE 2, OCTAVE 3, OCTAVE 4, OCTAVE 5, OCTAVE 6, OCTAVE 7, OCTAVE 8

FAN #1 USBI18D-RM - EXHAUST FAN



- FEATURES:
- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705
- UL702
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C)
- HIGH HEAT OPERATION BELT DRIVE 350°F (176°C)
- HEAT SLINGER
- GREASE CLASSIFICATION TESTING
- 2" DRAIN
- MOTOR WEATHER COVER
- FULLY SEALED SCROLL HOUSING
- SCROLL ACCESS DOOR
- FLANGE 1 1/4" - 11 THRU 20.
- FLANGE 2" - 24 THRU 36.

NORMAL TEMPERATURE TEST BELT DRIVE EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 350°F (176°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

REVISIONS table with columns: DESCRIPTION, DATE

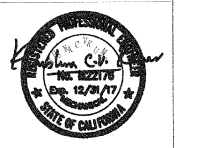
Joe's Grill - Santa Monica CA - Fan
2912 Main Street,
SANTA MONICA, CA, 90405

DATE: 6/22/2017
DWG.#: 3060816
DRAWN BY: AHJ-86
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

CAPTIVE logo and Southern California Office information: 3002 Dow Ave., Suite 410, Tustin, CA, 92780

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fonda-bonardi & hohman architects

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Joe's Grill
2912 Main Street
Santa Monica, CA
90405



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18311 S. Western Ave.
Torrance, CA 90508

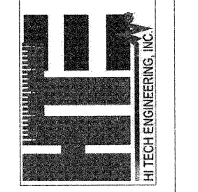


Table with columns: DATE, DESCRIPTION, DRAWN BY, CHECKED BY, APPROVED BY

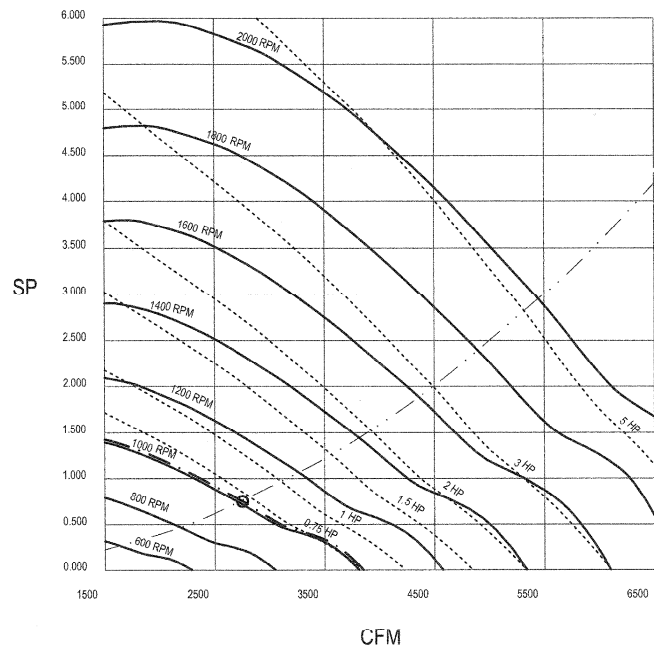
MECHANICAL HOOD DETAILS SHEET 2

M4.3

FOR REFERENCE ONLY

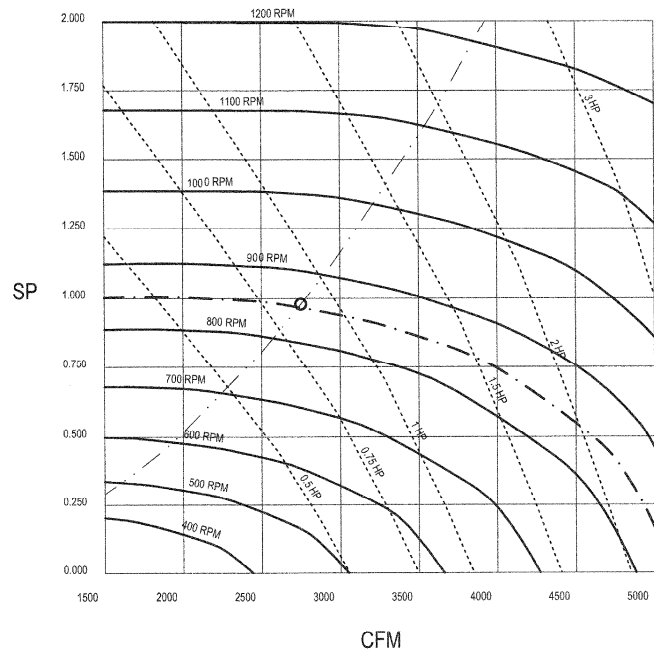
FAN#1 - EXHAUST PERFORMANCE CURVES.

2750 CFM, 0.75 SP @ 1010 RPM and 0.766 BHP at 134 feet and 70 deg F
 * Please note that these curves were adjusted for job specific temperature and altitude.



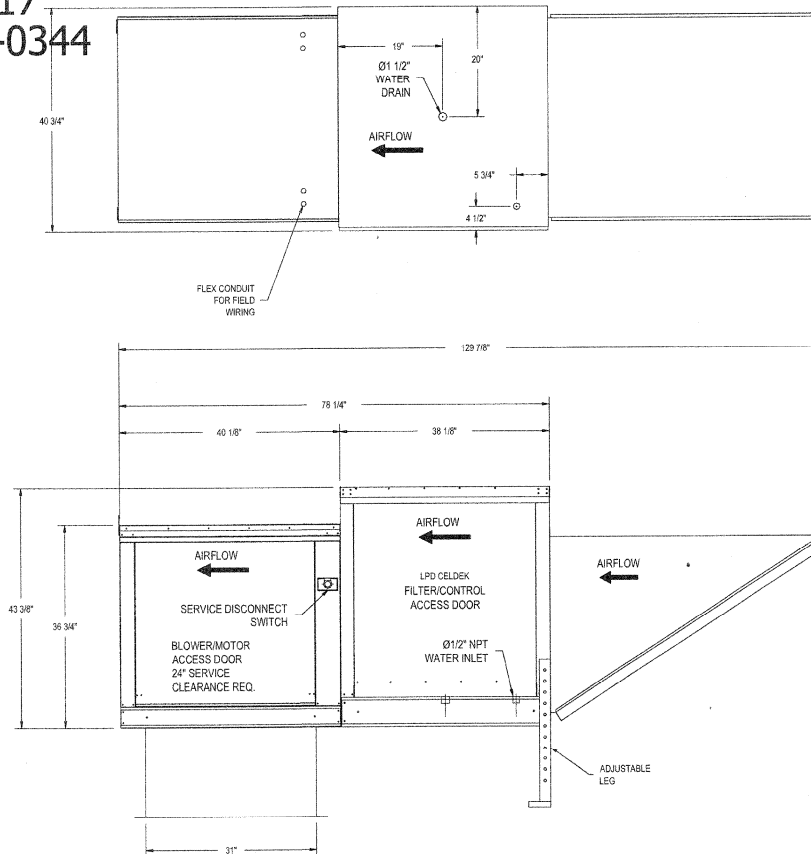
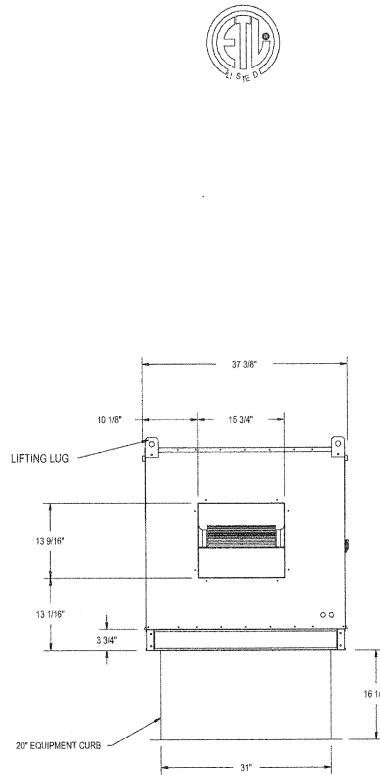
FAN#2 - SUPPLY PERFORMANCE CURVES.

2750 CFM, 0.978 SP @ 850 RPM and 0.858 BHP at 134 feet and 90 deg F
 * Please note that these curves were adjusted for job specific temperature and altitude.



- FAN #2 AD-012 - SUPPLY FAN
 1. UNTEMPERED SUPPLY UNIT WITH 12" BLOWER IN SIZE #2 HOUSING
 2. EVAP COOLER (LPD CEDEX) - WINTAKE HOOD WEZ FILTERS
 3. SIDE DISCHARGE - AIR FLOW RIGHT - LEFT
 4. 120V WIRING CONNECTION TO ENERGIZE EVAPORATIVE COOLERS FROM UNTEMPERED SUPPLY FANS

09/11/17
 17BLD-0344



REVISIONS	
DESCRIPTION	DATE

CAPTIVE
 Southern California Office
 3002 Dow Ave., Suite 410, Tustin, CA, 92780 PHONE: (714) 987-1500 FAX: (919) 227-6975 EMAIL: rsg8@captiveware.com
 www.captiveware.com

Joe's Grill - Santa Monica CA - Fan
 2912 Main Street,
 SANTA MONICA, CA, 90405

DATE: 6/22/2017
 DWG.#: 3060816
 DRAWN BY: AHJ-86
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING
 SHEET NO. 2

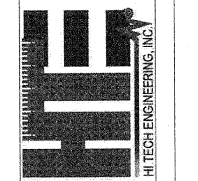
FOR REFERENCE ONLY

fb + h
 fonda-bonardi & hohman architects
 1450 23rd Street
 Santa Monica, CA 90404
 310-453-1134, 310-628-6830 fax
 info@fbarchitects.com
 www.fbarchitects.com

CLIENT
 Tenant Improvement for
 Joe's Grill
 2912 Main Street
 Santa Monica, CA
 90405



17002-09 JOE'S GRILL
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 Electrical and
 Plumbing Engineers
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 Tel. No. 310-576-1550
 Fax No. 310-576-1555
 www.hitechengineering.us



DATE	DESCRIPTION
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1/30/2017	REVISED ARB
2/20/2017	BIDDING
6/27/2017	PLAN CHECK
	PLAN CHECK REVISIONS
	CONSTRUCTION DOCUMENTS

MECHANICAL HOOD
 DETAILS SHEET 3
 P:\projects\17\17002-09 JOE'S GRILL\17002-09 JOE'S GRILL CD.dwg
 5/30/17

M4.4

STATE OF CALIFORNIA
PROCESS COMPLIANCE FORMS AND WORKSHEETS
 CEC-NRCC-PRC-01-E (Revised 04/16)

CERTIFICATE OF COMPLIANCE
 Process Compliance Forms & Checklists
 Project Name: _____ Date Prepared: 6/5/2017
 NRCC-PRC-01-E (Page 1 of 3)

A. PROCESS COMPLIANCE DOCUMENTS & WORKSHEETS

Check box if worksheet is included.
 For detailed instructions on the use of this and all Energy Standards compliance documents, refer to the 2016 Nonresidential Manual.
 Note: The Enforcement Agency may require all forms to be incorporated onto the building plans.

YES	NO	Doc/Worksheet #	Title
<input checked="" type="checkbox"/>	<input type="checkbox"/>	PRC-01-E (1 of 2)	Covered Process Certificate of Compliance. Required on plans for all submittals with covered processes.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	PRC-01-E (2 of 2)	Certificate of Compliance, Required Acceptance Tests (PRC-02-A to PRC-08-A). Required on plans for all submittals.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-02-E	Certificate of Compliance for Enclosed Parking Garage Exhaust Fans
<input type="checkbox"/>	<input type="checkbox"/>	PRC-03-E	Certificate of Compliance for Commercial Kitchens
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-04-E	Certificate of Compliance for Computer Rooms
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-05-E	Certificate of Compliance for Commercial Refrigeration
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-06-E	Certificate of Compliance for ALL Refrigerated Warehouses
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-07-E	Certificate of Compliance for Refrigerated Warehouse ≥ 3,000 ft ²
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-08-E	Certificate of Compliance for Refrigerated Warehouse Where Multiple Spaces that (i) comprise a total of 3,000ft ² or more; and (ii) are collectively served by the same refrigeration system (compressor(s) and condenser(s)) (central systems).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-09-E	Certificate of Compliance for Laboratory Exhaust
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-10-E	Certificate of Compliance for Compressed Air Systems
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-11-E	Certificate of Compliance for Process Boilers
<input type="checkbox"/>	<input type="checkbox"/>	PRC-12-C	Certificate of Compliance for Elevator Lighting and Ventilation Controls
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRC-13-E	Certificate of Compliance for Escalators and Moving Walkways Speed Controls



STATE OF CALIFORNIA
COMMERCIAL KITCHEN REQUIREMENTS
 CEC-NRCC-PRC-03-E (Revised 01/16)

CERTIFICATE OF COMPLIANCE
 Commercial Kitchen Requirements
 Project Name: Joe's Grill Date Prepared: 6/5/2017
 NRCC-PRC-03-E (Page 1 of 2)

KITCHEN ROOM NUMBER:	Joe's Grill
TOTAL INSTALLED TYPE I and II KITCHEN HOOD EXHAUST (CFM):	2,500
TOTAL BYPASS HOOD MUA (CFM):	2,000
TOTAL TRANSFER AIR AIRFLOW (CFM):	500
TOTAL MECHANICALLY HEATED OR COOLED MAKE UP AIR (CFM):	0
TOTAL AIR NEEDED FOR HEATING OR COOLING (CFM):	0
TOTAL EXHAUST AIR WITH DEMAND VENTILATION SYSTEMS:	0

Equipment Tags and System Description EF-1 SF-1

PRESCRIPTIVE MEASURES	T-24 Sections	Reference to the Requirements in the Contract Documents ³
Bypass Hood Exhaust and MUA	140.9(b)1A	
Type I/II Hood Exhaust	140.9(b)1B, Table 140.9-A	
Mechanically Heated or Cooled Make Up Air	140.9(b)2A and II	
Replacement Air/Transfer Air Exhaust	140.9(b)2Bii	n/a
Demand Ventilation Systems	140.9(b)2Bii	n/a
Energy Recovery Systems	140.9(b)2Biii	n/a
Tempered/Non Mechanical Cooling Air Systems	140.9(b)2Biv	n/a

STATE OF CALIFORNIA
COMMERCIAL KITCHEN REQUIREMENTS
 CEC-NRCC-PRC-03-E (Revised 01/16)

CERTIFICATE OF COMPLIANCE
 Commercial Kitchen Requirements
 Project Name: _____ Date Prepared: 6/5/2017
 NRCC-PRC-03-E (Page 2 of 2)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.
 Documentation Author Name: _____ Documentation Author Signature: _____
 Company: The American Engineers Signature Date: 6/5/2017
 Address: 18311 South Western Avenue CEA/HERS Certification Identification (if applicable): _____
 City/State/Zip: City of Torrance, California 90248 Phone: 1 (310) 760-6020

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Krishna C. V. Kumar, P. E. Responsible Designer Signature: _____
 Company: The American Engineers License: M22176
 Address: 18311 South Western Avenue License: M22176
 City/State/Zip: Torrance, CA 90248 Phone: 1 (310) 760-6020

STATE OF CALIFORNIA
PROCESS COMPLIANCE FORMS AND WORKSHEETS
 CEC-NRCC-PRC-01-E (Revised 04/16)

CERTIFICATE OF COMPLIANCE
 Process Compliance Forms & Checklists
 Project Name: _____ Date Prepared: 6/5/2017
 NRCC-PRC-01-E (Page 2 of 3)

B. PROCESS ACCEPTANCE DOCUMENTS

Check box for required compliance documents.
Designer:
 This compliance document is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for process systems. The designer is required to check the applicable boxes for all acceptance tests that apply and list all equipment that requires an acceptance test. If all equipment of the same type requires a test, list the equipment description and the number of systems.
Installing Contractor:
 The contractor who installed the equipment is responsible to either conduct the acceptance test themselves or have a qualified entity run the test for them. If more than one person has responsibility for the acceptance testing, each person shall sign and submit the Certificate of Acceptance applicable to the portion of the construction or installation for which they are responsible.
Enforcement Agency:
 Handcheck - The NRCC-PRC-01-E compliance document is not considered a completed document and is not to be accepted by the building department unless the correct boxes are checked.
 Inspector - Before occupancy permit is granted all newly installed process systems must be tested to ensure proper operation.

Test Description		PRC-01-A	PRC-02-A	PRC-03-A	PRC-04-A	PRC-05-A	PRC-06-A	PRC-07-A	PRC-08-A	PRC-12-A	PRC-13-A
Equipment Requiring Testing or Verification	# of Units	Compressed Air Systems	Garage Exhaust	Kitchen Exhaust	RHW Evap Fan Motor Controls	RHW Evap Condenser Controls	RHW Air-Cooled Condenser Controls	RHW Variable Speed Compressors	RHW Elect. Underlab Heating	Elevator Lighting and Ventilation Controls	Escalators and Moving Walkways Speed Controls
EF-1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SF-1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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STATE OF CALIFORNIA
PROCESS COMPLIANCE FORMS AND WORKSHEETS
 CEC-NRCC-PRC-01-E (Revised 04/16)

CERTIFICATE OF COMPLIANCE
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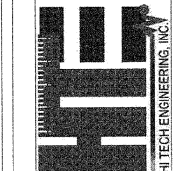
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CLIENT
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17002-09 JOE'S GRILL

Consulting Mechanical
 Electrical and
 Plumbing Engineers
 18311 S. Western Ave.
 Torrance, CA 90248
 Tel: 310-996-1838
 info@hitechengineering.us
 www.hitechengineering.us



CHANGES/REVISIONS #1

As-Built Drawings
 November 2016
 12/29/16 ARB and SCHEMATIC DESIGN
 1/23/17 Construction Drawings
 1/30/2017 REVISED ARB
 2/20/2017 BIDDING
 6/27/2017 PLAN CHECK REVISIONS
 CONSTRUCTION DOCUMENTS

MECHANICAL TITLE 24



09/11/17
17BLD-0344

WATER CALCULATIONS

PER TABLES 610.4

TOTAL FIXTURE COUNT : 21
AVAILABLE WATER PRESSURE : HIGH - 65 PSI ; LOW - 55 PS (PER SM WATER DEPT)
BUILDING STATIC PRESSURE HEIGHT 12' HEIGHT X 0.434 = 5.2 PSI
RESIDUAL PRESSURE = 49.8 PSI
DEVELOPED LENGTH = 100 FT X 1.2 = 120 FEET (MOST REMOTE COLD OR HOT WATER OUTLET FROM WATER METER)
WATER METER SIZE (EXISTING) = 3/4" WATER SERVICE SIZE (NEW) = 1"
FIXTURE UNITS PER PIPE SIZE (PRESSURE RANGE 46-60 PSI) :
1/2" = 4
3/4" = 14
1" = 28

HOT WATER HEATER SIZING

A. GPH INFORMATION : -
2 HANDSINK /LAV X 5 GPH = 10 GPH
3 COMPARTMENT POT SINK = 45 GPH
MOP SINK = 15 GPH
PREP SINK = 5 GPH
TOTAL = 75 GPH
B. BTUH INPUT = $\frac{75 \text{ GPH} \times 50^\circ\text{F} \times 8.33}{96}$ = 32,539.06 BTUH
C. SELECTED: 50 GALLON STORAGE TANK WATER HEATER 100,000 BTUH

WASTE & WATER FIXTURE UNITS

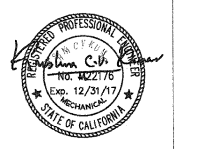
FIXTURE	WASTE			WATER			TOTAL
	QUANTITY	FIXTURES UNITS	TOTAL	FIXTURES UNITS (CW)	TOTAL	FIXTURES UNITS (HW)	
3 COMP. KITCHEN SINK	1	3	3	4	4	4	4
PREP SINK	1	-	-	2	2	2	2
MOP SINK	1	3	3	3	3	3	3
WATER CLOSET	1	6	6	3.5	3.5	-	-
LAVATORY	1	1	1	1	1	1	1
ICE MACHINE	1	-	-	1	1	-	-
FLOOR DRAIN	3	2	6	-	-	-	-
FLOOR SINK	2	2	4	-	-	-	-
HAND SINK	1	2	2	2	2	2	2
SODA DISPENSER	1	-	-	1	1	-	-
HOSE BIBB	2	-	-	2.5 + 1	3.5	-	-
EVAPORATIVE COOLER(MAU)	1	-	-	1	-	-	-
TOTAL			25		22		12
SEWER LINE - 3" (EXISTING)							
CURVE (FLUSH TANK) - WATER LINE = 1" CW (N)							

PIPE MATERIAL SCHEDULE

SERVICE	PIPE	FITTINGS	LOCATION
WASTE & VENT	CAST IRON NO HUB	CAST IRON NO HUB	ABOVE GRADE BELOW GRADE
STORM DRAIN	CAST IRON NO HUB	CAST IRON NO HUB	ABOVE GRADE BELOW GRADE
HOT AND COLD WATER	COPPER TYPE "L" HARD DRAWN	WROUGHT COPPER	ABOVE GRADE
COLD WATER	COPPER TYPE "L" HARD DRAWN	WROUGHT COPPER	BELOW GRADE
INDIRECT WASTE CONDENSATE DRAIN	COPPER TYPE "M" HARD DRAWN	WROUGHT COPPER	ABOVE GRADE
GAS	BLACK STEEL SCHEDULE 40	BLACK STEEL MALLEABLE IRON	ABOVE GRADE

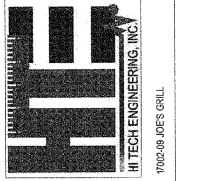
PLUMBING FIXTURE SCHEDULE

ITEM	DESCRIPTION	WASTE	TRAP	VT	CW	HW	SPECIFICATIONS & REMARKS
HS 1	3-COMPARTMENT SINK	2"	2"	1-1/2"	1/2"	1/2"	SEE KITCHEN DRAWINGS FOR SPECS DIRRECT DRAINAGE CONNECTION PER CPC 704.3
PS 1	PREP SINK	-	-	-	1/2"	1/2"	SEE KITCHEN DRAWINGS FOR SPECS , INDIRECT DRAIN TO FLOOR SINK
MS 1	MOP SINK	3"	3"	2"	1/2"	1/2"	SEE KITCHEN DRAWINGS FOR SPECS PROVIDE VACUUM/BREAKER/BACKFLOW PREVENTER FOR FAUCET
HS 1	HAND SINK	2"	1-1/2"	1-1/2"	1/2"	1/2"	SEE KITCHEN DRAWINGS FOR SPECS PROVIDE ASSE 1070 COMPLIANT TEMP. MIXING VALVE (LEONARD 270-LF) TO LIMIT TEMP TO 110°F
IM 1	ICE MAKER	-	-	-	1/2"	-	SEE KITCHEN DRAWINGS FOR SPECS. INDIRECT WASTE TO FLOOR SINK. ENERGY STAR RATED PROVIDE WATTS SD-3 BFP AT WATER INLET. PROVIDE FILTERED WATER.
SD 1	SODA DISPENSER	-	-	-	1/2"	-	SEE KITCHEN DRAWINGS FOR SPECS , INDIRECT DRAIN TO FLOOR SINK. PROVIDE BACKFLOW PREVENTER AT WATER INLET. PROVIDE FILTERED WATER.
L 1	LAVATORY	2"	1-1/2"	1-1/2"	1/2"	1/2"	AMERICAN STANDARD MURRO WALL MOUNT SINK WITH SELECTRONIC METERING FAUCET (MODEL 6055.104) 0.044 GPC AT 7.5 SECS CYCLE. PROVIDE THERMOSTATIC MIXING VALVE ASSE 1070 CONFORMING TO LIMIT TEMP TO 110°(LEONARD 270-LF)- ADA COMPLIANT
WC 1	WATER CLOSET	3"	INT	2"	3/4"	-	AMERICAN STANDARD CADET FLOWISE, ELONGATED BOWL, PRESSURE ASSISTED, 1.1 GPF. PROVIDE OPEN FRONT WC SEAT. ADA COMPLIANT
WH 1	WATER HEATER (GAS)	-	-	-	1"	1"	AO SMITH MODEL# BTX-100, 50 GALLON STORAGE TANK WATER HEATER 100,000 BTUH. PROVIDE EXPANSION TANK , RECIRC. PUMP. & TEMPERATURE CONTROL MODULATION. FLOOR MOUNTED
WF 1	WATER FILTER	-	-	-	1/2"	-	SEE KITCHEN DRAWINGS FOR SPECS. SERVES ICE MACHINE & SODA DISPENSER. INDIRECT WASTE TO FLOOR SINK. PROVIDE BACKFLOW PREVENTER AT WATER INLET.
HB 1	HOSE BIBB	-	-	-	1/2"	-	ACORN - LOCKABLE HOSE BIBB
GT 1	GREASE TRAP	2"	INT.	2"	-	-	WATTS WD-35, 70 LBS GREASE CAPACITY, 35 GPM FLOW RATE



17002-09 JOE'S GRILL

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17002-09 JOE'S GRILL

CHANGES REVISIONS #1

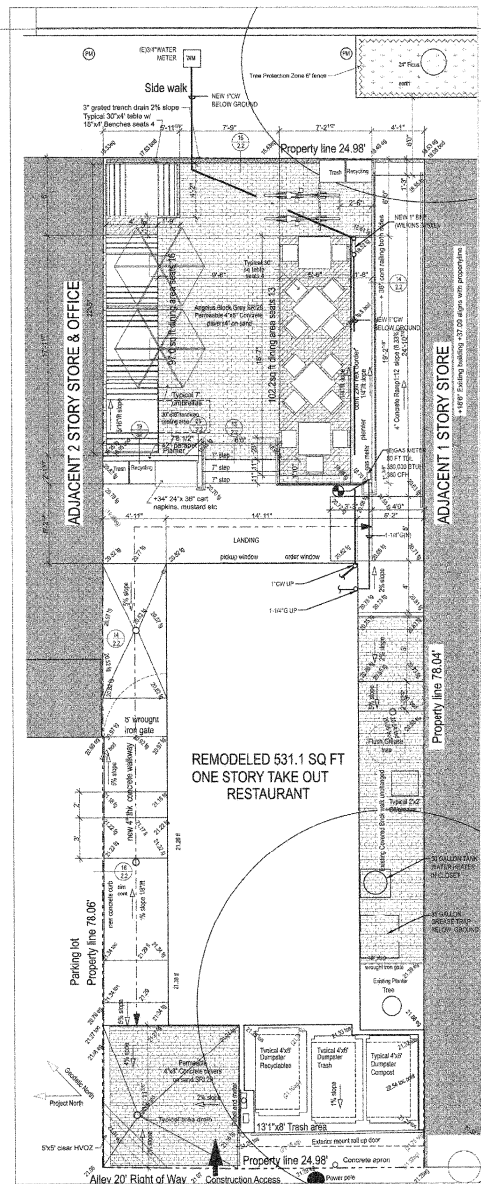
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	CONSTRUCTION DOCUMENTS

PLUMBING SCHEDULES & CALCULATIONS



09/11/17
17BLD-0344

MAIN ST.



NOTE: PROVIDE NEW 1/2" BRASS VALVE PACIFIC INDUSTRIES MODEL 100

GENERAL NOTES:

1. CONTRACTOR TO VERIFY EXACT LOCATION, SIZE, DIRECTION AND DEPTH OF EXISTING UTILITIES PRIOR TO BID & COMMENCING WORK.
2. WHERE CONDITIONS ARE SHOWN OR NOTED AS EXISTING, THEY ARE BASED ON THE BEST INFORMATION CURRENTLY AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS. NO WARRANTY IS IMPLIED AS TO THE ACCURACY OF SAME HOWEVER AND CONTRACTOR IS TO FIELD VERIFY ALL CONDITIONS. SHOULD FIELD CONDITIONS DIFFER FROM THOSE SHOWN HEREIN THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.

ZURN Model 375XL Reduced Pressure Principle Assembly

Application
Ideal for use where Lead-Free valves are required. Designed for installation on potable water lines to protect against both back-siphonage and backpressure of contaminated water into the potable water supply. Assembly shall provide protection where a potential health hazard exists.

Standards Compliance

- ASSE® Listed 1013
- IAPMO® Listed
- CSA® Certified 684.4
- AWWA compliant C911
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- UL® Classified (less shut-off valves only, 3/4" - 2")
- CUL® Classified (less shut-off valves only, 3/4" - 2")
- Certified to NSF/ANSI 372 by IAPMO RWT
- NSF® Listed-Standard 61, Armet G®
- 16.25% MAX. WEIGHTED AVERAGE LEAD CONTENT

Materials

- Housing: Reinforced Nylon, FDA approved
- Fasteners: Stainless Steel, 300 Series
- Elastomers: Silicone (FDA Approved)
- Internal: Buna Nitrile (FDA Approved)
- Diaphragm: Nylon, NSF Listed
- Spring: Stainless Steel, 300 series
- Ball Valves: Cast Bronze, ASTM B 584
- Shut: Forged Brass, ASTM B 124

Options

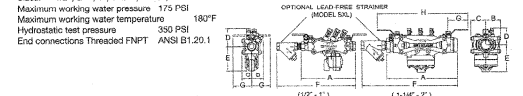
- with full port OT ball valves (standard)
- L - lead ball valves, male pipe thread
- S - with Model SKL lead-free bronze "Y" type strainer
- SH - with stainless steel handles
- FT - with integral main-45° brass 3/4" lead fitting
- AG - with air gap
- SAG - with Model SKL lead-free bronze "Y" strainer and air gap
- BOF - with flow out/flush fitting
- B - with black fusion epoxy coated ball valves & struts for theft protection

Accessories

- Repair kits
- Thermal expansion tank (Mod. XT)
- Soft seated check valve (MS-400/2)
- Shock arrester (Model 1250XL)
- QT-SET Quick Test Fitting Set
- Blow out/Flush fitting (FKS375BOF (1/2" or 3/4"), RK1-375BOF or RK114-350-375BOF)

Features

- Size: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
- Maximum working water pressure: 175 PSI
- Maximum working water temperature: 180°F
- Hydrostatic test pressure: 300 PSI
- End connections: Threaded FNPT ANS B1.20.1

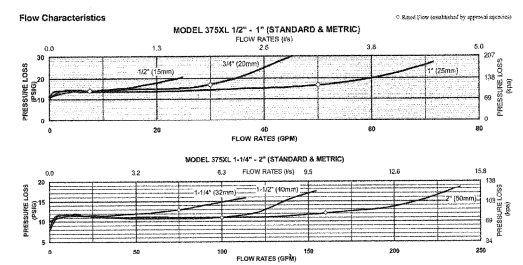


Dimensions & Weights (do not include pkg.)

MODEL SIZE	DIMENSIONS (approximate)										HEIGHT	
	A	B	C	D	E	F	G	H	J	LESS BALL VALVES	WITH BALL VALVES	
1/2"	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
3/4"	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1"	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1-1/4"	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
1-1/2"	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
2"	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Zurn Industries, LLC | Wilkes
1747 Commerce Way, Palo Alto, CA 94304 | 650-453-8676 | Fax 650-258-6766
In Canada: Zurn Industries Limited
2544 Highway 101, Mississauga, Ontario L4V 1L2 | 905-465-8272 | Fax 905-405-1092
www.zurn.com

Rev. D
Date: 12/13
Document No.: 375-375X
Patent No.: E. 513, 543, 734, 483, 5, 7, 8, 25, 250
Product No.: Model 375XL
Page 1 of 2

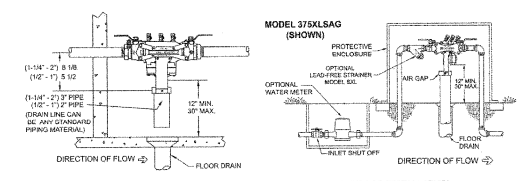


Typical Installation

Local codes shall govern installation requirements. To be installed in accordance with the manufacturer's instructions and the latest edition of the Uniform Plumbing Code. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 36" (915mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

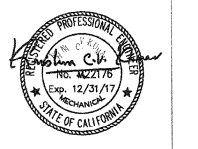
Capacity thru Schedule 40 Pipe

Pipe Size	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
3/8"	3	4	6	9	14	25	40
1/2"	5	7	9	14	25	40	70
3/4"	8	12	17	25	40	70	95
1"	13	20	27	40	70	95	125
1-1/4"	23	35	47	70	95	125	165
1-1/2"	32	48	63	95	125	165	215
2"	52	76	105	165	215	285	375



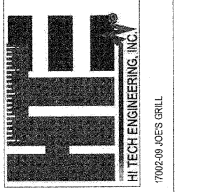
Specifications
The Reduced Pressure Principle Backflow Preventer shall be certified to NSF/ANSI 372, ASSE® Listed 1013, rated to 180°F, and supplied with full port ball valves. The main body shall be Nylon and the seat disc elastomers shall be silicone. If installed indoors, the installation shall be supplied with an air gap adapter. The Reduced Pressure Principle Backflow Preventer shall be a ZURN WILKING Model 375XL.

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www.zurn.com
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Consulting Mechanical
Electrical and
Plumbing Engineers
18311 S. Western Ave.
Torrance, CA 90508
Tel. No. 310-576-1653
info@fbharchitects.com
www.fbharchitects.com

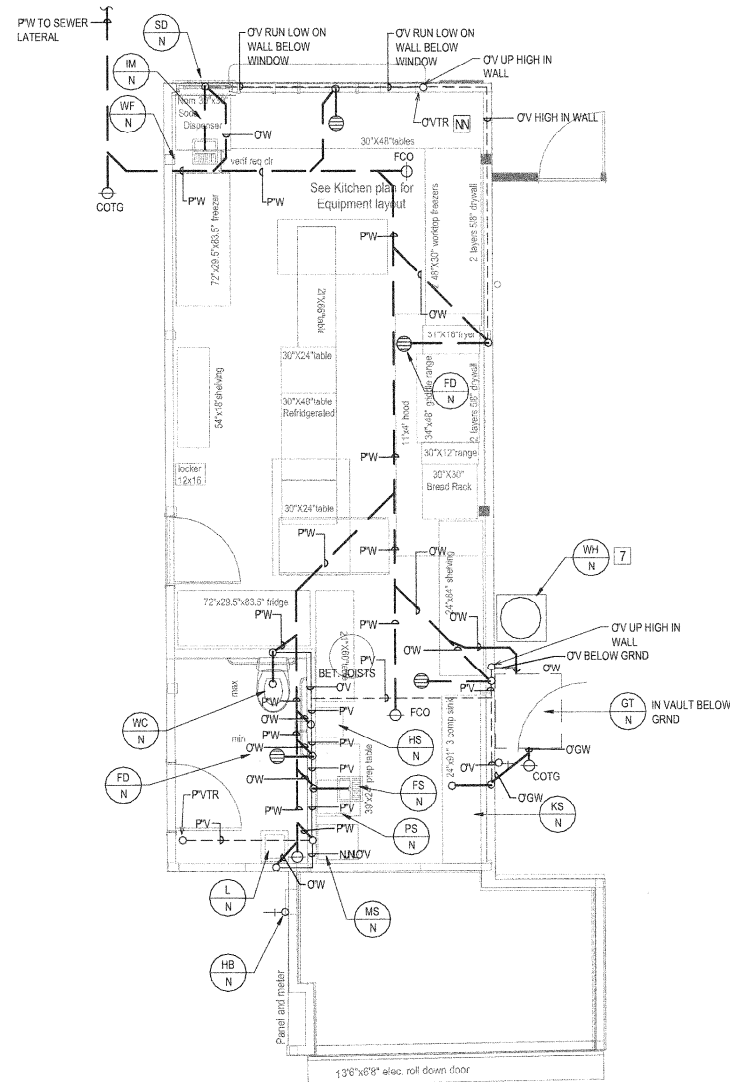


CHANGES/REVISIONS #1

NO.	DATE	DESCRIPTION
1	12/29/16	As-Built Drawings
2	1/23/17	ARB and SCHEMATIC DESIGN
3	1/30/2017	Construction Drawings
4	2/20/2017	REVISED ARB
5	3/30/17	BIDDING
6	5/11/17	PLAN CHECK
7	5/11/17	PLAN CHECK REVISIONS
8	5/11/17	CONSTRUCTION DOCUMENTS

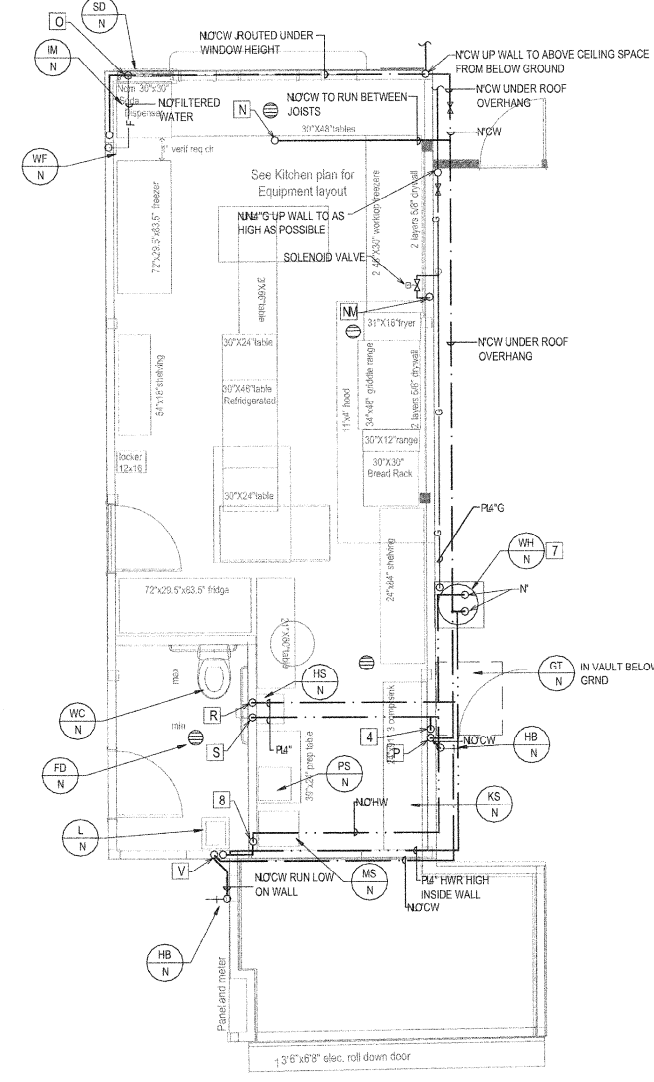


09/11/17
17BLD-0344



PLUMBING FLOOR PLAN (WASTE & VENT)

SCALE: 1/4" = 1'-0" N



PLUMBING FLOOR PLAN (WATER AND GAS)

SCALE: 1/4" = 1'-0" N

GENERAL NOTES

- N CONTRACTOR TO VERIFY EXACT LOCATION SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING WORK.
- O WHERE CONDITIONS ARE SHOWN OR NOTED AS EXISTING THEY ARE BASED ON THE BEST INFORMATION CURRENTLY AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS. NO WARRANTY IS IMPLIED AS TO THE ACCURACY OF SAME HOWEVER AND CONTRACTOR IS TO FIELD VERIFY ALL CONDITIONS. SHOULD FIELD CONDITIONS DIFFER FROM THOSE SHOWN HEREIN THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.

PLUMBING NOTES

- A FACILITY IS MOPPED REGULARLY SO NO NEED FOR TRAP PRIMERS FOR FLOOR DRAINS. PROVIDE IF REQUIRED BY CITY.
- B ALL WASTE LINES TO BE SLOPED AT 1/8".

KEYNOTES

- N NFCW UP TO MAKE UP AIR UNIT ON ROOF. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION IN FIELD.
- O UNFILTERED WATER TO ICE MACHINE (IM) AND SODA DISPENSER (SD).
- P P4" CW MANIFOLD DOWN TO FAUCETS OF KITCHEN POT SINK (KS) (NFCW PER FAUCET) AND HOSE BIBB (HB) (NFCW). VERIFY WITH ARCHITECT WHETHER TO CONCEAL PIPING TO HOSE BIBB IN WALL OR EXPOSED.
- 4 P4" HW MANIFOLD DOWN TO FAUCETS OF KITCHEN POT SINK (KS) (NFCW PER FAUCET)
- R P4" CW MANIFOLD DOWN TO HAND SINK (HS) (NFCW) WATER CLOSET (WC) (P4" CW) (PREP SINK FAUCET (PS) (NFCW) AND MOP SINK (MS) (NFCW).
- S P4" HW MANIFOLD DOWN TO HAND SINK (HS) (NFCW) AND PREP SINK FAUCET (PS) (NFCW)
- 7 INSTALL WATER HEATER INSIDE EXTERIOR CLOSET AS PER MANUFACTURER'S INSTRUCTIONS.
- 8 P4" HW MANIFOLD DOWN MOP SINK (MS) (NFCW) AND LAVATORY FAUCET (L) (NFCW)
- V P4" CW MANIFOLD DOWN TO LAVATORY FAUCET (L) (NFCW) AND HOSE BIBB (HB) (NFCW). VERIFY WITH ARCHITECT WHETHER TO CONCEAL PIPING TO HOSE BIBB IN WALL OR EXPOSED.
- MM N4" G MANIFOLD DOWN WALL TO P GAS OUTLETS (JFRYER (R) (G) GRIDDLE RANGE (G) AND BURNER RANGE (G))
- NN EXTEND AND RELOCATE TO KEEP MINIMUM CLEARANCE FROM MECHANICAL AIR INTAKE AND PROPERTY LINE. COORDINATE WITH MECHANICAL PLANS AND ARCHITECT PRIOR TO CONSTRUCTION.

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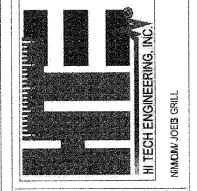
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Santa Monica, CA 90404
310-453-1134, 310-828-5830 fax
info@fbharchitects.com
www.fbharchitects.com

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Tenant Improvement for
Joe's Grill
2912 Main Street
Santa Monica, CA
90405



WILLIAM JOES GRILL

Consulting Mechanical
Electrical and
Plumbing Engineers
18311 S. Western Ave.
Torrance, CA 90248
Tel. No. 310-506-1553
info@hitechengineering.us
www.hitechengineering.us



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PLUMBING FLOOR PLANS

Pipersky4.0 CUJ.pjn
6/27/17

P.O.N



09/11/17
17BLD-0344

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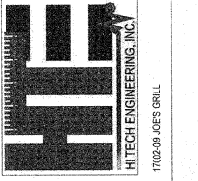
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Consulting Mechanical
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Torrance, CA 90509
Tel: 310-572-1653
Info@hitechengineering.com
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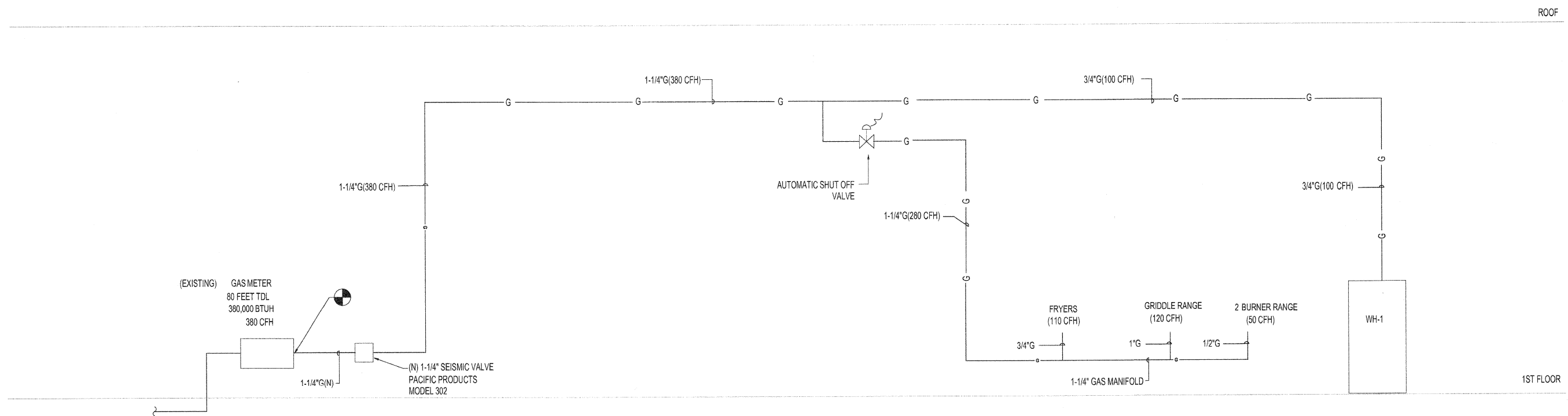
CHANGES REVISIONS #1

November 2016	As-Built Drawings	
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5/11/17	PLAN CHECK REVISIONS	
	CONSTRUCTION DOCUMENTS	

PLUMBING RISER
DIAGRAM (GAS)

Pipersky4.0 CD.pln
6/27/17

P5.2



GAS RISER DIAGRAM
SCALE: NTS